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ABSTRACT

This study explored the relationship between family background, family relationships, self concept and school attitude variables, as they were related to the ability of one child in the family to cope more effectively with the same junior high school than did the sibling. Half of the families had no father in the home. Data were gathered by personal interviews with 846 children from 3 geographic areas, rural West Virginia, rurban towns in Upstate New York, and urban center-city Syracuse. Results from partitioning of variance technique supported a differentiated interactive model. Family factors not only predicted differences in achievement, but modified the self concept and school attitudes which, in turn, were related to differences in achievement between siblings. Support was found for a theory of countervailing forces. Urban children needed a strong, strict mother and warm teachers. Rural children needed separation from home, and schools which rewarded creativity and enforced less conformity. Rurban children needed a non-hostile home, intellectual challenge and affiliation with social norms. Peer relationships were negative except in the rural area. (Author)

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Differential Academic Copying Behavior of Siblings in Three Geographic Areas

November, 1971

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Differential Academic Coping Behavior of Siblings from Three Geographical Areas

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and Family Studies
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Ithaca, N.Y.

November 1971

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National Center for Educational
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PREFACE

This large scale study is the result of the efforts of many people. Data gathering in three areas involved a field staff for each place. Dr. Oscar Mink made arrangements at the state level for the data gathered in rural West Virginia and Frances Stillman supervised the field work. In the urban area, Dr. Howard Taylor, Sociology Dept., Syracuse University, and Robert Mills were responsible for the data gathered there. Dr. Arnold Berger, Asst. Superintendent for Pupil Personnel Services made possible the gathering of the school data. In the rurban area, Diane Portnoy and Sue Eshleman managed the field operation. Dr. Phil Lewin assisted in making arrangements in the other schoolsand supervised the gathering of the school data in Ithaca. Ms. Bush in Cortland, Mr. Ronald Poletto in Elmira, Ms. Tina Achilles in Geneva, and Mr. Robert Brannigan in Auburn were responsible for data gathering in their respective school systems.

The research design and methods for statistical analysis, although the responsibility of the principal investigator, had contributions from a number of people. Margaret Unsworth, Research Associate at the early period, made many suggestions about the overall design and also had a good deal to do with the organization of the interview schedule. Dr. Sarah Blackwell, Dr. Earl Morris, Dr. Roy Rogers and Dr. Richard Darlington were special consultants about the research design. Roy Williams and Joan Knapp were both instumental during the early period.

During the writeup period, Dianne Partnoy wrote the section on School Attitudes and the urban area section. Sue Eshleman wrote on the Self, and wrote the methodology and factor analysis sections of the Appendix, and was responsible for the statistical operations, including the factor analysis and the multiple regressions.

Dr. Margaret Feldman, Associate Professor at Ithaca College, took a term sabbatic leave and collaborated in every phase of the final write up. She not only collaborated on revisions but had primary responsibility for the section on Demography and the section on the rural area. She alsowrote the material on the partitioning of variance.

The study was fortunate in having three excellent Administrative Aides: Nancy Spencer, Chris Sweet and Jan Robinson. The computer work was done by Clara Lewis and Sherman Hanna.

The principal investigator would like to thank the Dean of the College of Human Ecology, Dr. David Knapp, and Dr. Ethel Vatter and Dr. John Hill, Associate Deans for Research. Dr. Niles Brady, Director of the Experiment Station was supportive since the inception of the study, as were Dr. Edward Devereux and Dr. Henry Ricciuti, the

Chairmen of the Dept. of Human Development and Family Studies. Dr. Goebels of the U.S. Office of Education was helpful in being the contact with that office, but most important, he perceived the possibilities of the study from its start.

The almost 900 children who were studied deserve a special thanks and I hope the results of the study will be be useful to them and children like them.

While one of the main purposes of research is to contribute to the fund of knowledge and explanatory theories, I hope the results of this study will also be used to facilitate the ability of children to cope with the academic environment.

TABLE OF CONTENTS

Chapters Page

I INTRODUCTION---------------------------------- 1

II SUMMARY OF RESEARCH PROCEDURES-------------- 11

III FINDINGS RELATED TO RESEARCH DESIGN--------- 17

IV FINDINGS UNIQUE TO EACH OF THE FOUR DIMENSIONS------------------------------------ 26

THE DEMOGRAPHIC VARIABLES------------------- 26

RURAL AREA-------------------------------- 30

RURBAN AREA------------------------------- 38

URBAN AREA-------------------------------- 46

COMPARISON OF THE THREE GEOGRAPHICAL AREAS------------------------------------ 53

THE FAMILY VARIABLES------------------------ 59

RURAL AREA-------------------------------- 62

RURBAN AREA------------------------------- 70

URBAN AREA-------------------------------- 75

COMPARISON OF THE THREE GEOGRAPHICAL AREAS------------------------------------ 83

THE SELF VARIABLES-------------------------- 85

RURAL AREA-------------------------------- 89

RURBAN AREA------------------------------- 97

URBAN AREA--------------------------------105

COMPARISON OF THE THREE GEOGRAPHICAL AREAS------------------------------------113

THE SCHOOL VARIABLES------------------------114

RURAL AREA--------------------------------117

RURBAN AREA-------------------------------122

URBAN AREA--------------------------------127

COMPARISON OF THE THREE GEOGRAPHICAL AREAS-------------------------------135

V INTERACTION OF DEMOGRAPHIC, FAMILY, SELF AND SCHOOL VARIABLES IN THREE GEOGRAPHICAL AREAS------------------------------139

RURAL AREA--------------------------------139

RURBAN AREA-------------------------------147

URBAN AREA-------------------------------154

VI SUMMARY AND CONCLUSIONS---------------------165

SUMMARY OF THE RURAL AREA----------------167

SUMMARY OF THE RURBAN AREA---------------172

SUMMARY OF THE URBAN AREA----------------174

VII CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS ABOUT RESEARCH DESIGN-------177

THEORETICAL AND SUBSTANTIVE CONCLUSIONS-177

RECOMMENDATIONS--------------------------180

APPENDICES

A PARTITIONING OF VARIANCE----------------182

B KEY TO VARIABLES-------------------------187

C LIST OF FACTORS--------------------------202

D RESEARCH METHOD------------------------222

E PARTICIPATING SCHOOLS--------------------232

COPY OF THE QUESTIONNAIRE

LIST OF TABLES

TABLE TITLE PAGE

1. Means, t-Value for Significance of the Difference Between Siblings on Academic Achievement for Rural, Rurban and Urban Areas---------------------------------- 18

2. Overall Results for Multiple Regressions in Rural, Rurban and Urban Areas---------------------------------- 19

3. Percent of Accounted for Variance Among the Three Geographic Areas-- 20

4. Ratio of Unique to Shared Variance for the Four Dimensions in the Rural, Rurban, and Urban Areas---------- 24

5. Demographic Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables were Selected in Rural, Rurban and Urban Area Samples--- 27

6. Beta Weights and F Values for Demographic Variables Related to Differences in Academic Achievement of Siblings in the Rural Area--------------------------- 30

7. Statistically Significant Correlations between the Indicator "Father Living" and Other Demographic Variables for the Rural Area------------------------- 31

8. Statictically Significant Correlations Between the Indicator "Number of Children" and "Number of Rooms per Person" and Other Demographic Variables for the Rural Area--- 33

9. Statictically Significant Correlations Between Demographic Variables and the Indicator, "SEI", For the Rural Area-------------------------------------- 34

10. Statistically Significant Correlations Between Demographic Variables and the Indicator, "Number of Dropouts" for the Rural Area------------------------ 36

11. Beta Weights and F Values for Demographic Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area-------------------------- 38

12. Correlations Between the Indicator, "Nursery School Attendance" and Other Selected Variables for the Rurban Area-- 39

13. Significant Correlations Between the Indicator, "Educational Things in the Home" and Other Demographic Variables for the Rurban Area---------------- 40

List of Tables
(con't.)

Table Title Page

14. Significant Correlations of the Indicator "Sex by Achievement" with Other Demographic Variables for the Rurban Area---------------------------------- 41

15. Significant Correlations for the Indicator "Race: Black" with Other Demographic Variables for the Rurban Area-- 42

16. Significant Correlations of the Indicator Variable, "Number of Female Children" with Other Demographic Variables for the Rurban Area---------------------- 42

17.Significant Correlations of the Indicator "Share a

17. Significant Correlations of the Indicator "Share a Room" with Other Demographic Variables for the Rurban Area-- 43

18. Beta Weights and F Values for Demographic Variables Related to Differences in Academic Achievement of Siblings in the Urban Area------------------------ 46

19. Significant Correlations Between the Indicator "Father Living" with Other Demographic Variables in the Urban Area---------------------------------- 48

20. Significant Correlations Between the Indicator, "Father Employed" and Other Demographic Variables for the Urban Area---------------------------------- 49

21. Significant Correlations Between the Indicator, "Mother's Education" and Other Demographic Variables for the Urban Area---------------------------------- 50

22. Significant Correlations Between the Indicator, "Race: Black" and Other Demographic Variables for the Urban Area-------------------------------------- 51

23. Family Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables were Selected in Rural, Rurban and Urban Area Samples--------------------------------------- 59

24. Significant Family Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables were Selected in Rural, Rurban, and Urban Area Samples------------------------------- 61

25. Beta Weights and F Value for Family Variables Related to Differences in Academic Achievement of Siblings in the Rural Area------------------------ 62

List of Tables
(con't.)

Table Title Page

26. Significant Correlations of the Indicator, "Rules Set by Parents" with Other Family Factors ---------- 64

27. Significant Correlations of the Indicator, "Pressuring Father", with Other Family Factors for the Rural Sample-- 65

28. Significant Correlations Between the Indicator, "Conflict with Mother" and Other Family Factors---------- 65

29. Beta Weights and F Values for Family Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area---------------------------- 70

30. Significant Correlations Between the Indicator, "Mother-Child Conflict" and Other Family Variables--- 71

31. Significant Correlations Between the Indicator, "Authoritarian Mother", and Other Family Variables--- 71

32. Significant Correlations Between the Indicator, "loyalty to Parents" and Other Family Variables---------- 73

33. Beta Weights and F Values for Family Variables Related to Differences in Academic Achievement of Siblings in the Urban Area-------------------------- 75

34. Significant Correlations Between the Indicator, "Mother-Child Conflict", and Other Family Variables-- 76

35. Significant Correlations Between the Indicator, "Pressuring Father", and Other Factors--------------- 77

36. Significant Correlations Between the Indicator, "Sibling Interaction", and Other Family Factors---------- 78

37. Significant Correlations Between the Indicator, "Pressuring Mother", and Other Family Factors for the Urban Area--- 80

38. Correlates of the Indicator, "Mother-Child Conflict", in the Three Socio-Geographic Areas------------------ 84

39. Self Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables Were Selected in Rural, Rurban and Urban Areas------------ 86

40. Beta Weights, and F Values for Self Variables Related to Differences in Academic Achievement of Siblings in the Rural Area-------------------------------- 89

List of Tables
(con't.)

Table Title Page

41. Significant Correlations Between the Indicator, External Locus of Control, and the Other Self Variables-- 90

42. Statistically Significant Correlations Between the Indicator "Personal Value: Good-Child", and Other Self Variables-- 91

43. Significant Correlations for Two Verbal Communication Indicators and Nine Other Self Variables-------------- 93

44. Significant Correlations Between the Indicator, Self to Other Belongingness and Other Self Variables------- 94

45. Significant Correlations Between the Indicator, Conformity to Adults, and Other Self Variables----------- 95

46. Beta Weights, and F Values for Self Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area-- 97

47. Significant Correlations Between the Indicator "High Self Esteem" and Other Self Variables----------------- 98

48. Significant Correlations Between the Indicator "Anomie About Being A School Athlete", and Other Self Variables-- 99

49. Significant Correlations Between the Indicator "Active Orientation of Self", and Other Self Variables 99

50. Significant Correlations Between the Indicator "Sibling Selected as Significant Other", and Other Self Variables-- 100

51. Significant Correlations With the Indicator "Amount of Talking with Father", and Other Self Variables----- 101

52. Statistically Significant Correlates Between the Two Indicators, "Mother's Value: Social Conformity for R", and "Rejection of Mother's Values," and Other Self Variables-- 102

53. Beta Weights, and F Values for Self Variables Related to Differences in Academic Achievement of Siblings in the Urban Area-- 105

List of Tables
(con't.)

Table Title Page

54. Significant Correlations Between the Indicator, "Anomie About Success", and Other Self Indicators-- 106

55. Significant Correlations Between the Indicator, "Inner-Directedness for Ideal Self", and Other Self Indicators------------------------------------ 106

56. Significant Correlations Between the Indicator, "Inner-Directedness of Actual Self Concept", and Other Self Variables-------------------------------- 107

57. Significant Correlations Between the Indicators, "Teacher or Other Adult Significant Other", and "Total Talk with Teachers or Other Adults", and Other Self Variables-------------------------------- 108

58. Significant Correlations With the Indicator, "Mother as First Choice for Significant Other"------------- 109

59. Significant Correlations Between the Indicator, "Conformity to Adults (Self-6)", and Other Self Variables--- 111

60. Significant Correlations Between the Indicator, "Conformity to Society's Values of Success (Self-5)", and Other Self Variables-------------------------- 112

61. Stepwise Regression of School Variables on Sibling Differences in Academic Achievement for Three Geographical Areas---------------------------------- 114

62. Beta Weights and F Values for School Variables Related to Differences in Academic Achievement of Siblings in the Rural Area---------------------------- 117

63. Significant Correlations Between the Indicator, "Total Help With Homework" and Other School Variables for the Rural Area---------------------------------- 118

64. Significant Correlations Between the Indicator, "Positive Teacher Relationships" and Other School Variables for the Rural Area----------------------- 119

65. Beta Weights and F Values for School Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area--------------------------- 122

66. Significant Correlations Between the Indicator, "Negative Valence to School" and Other School Factors for the Rurban Sample---------------------- 123

List of Tables
(con't.)

Table Title Page

67. Significant Correlations Between the Indicator, "Time Spent Reading for Pleasure", and Other School Factors for the Rurban Sample---------------- 123

68. Significant Correlations Between the Indicator, "Social Environment Conducive to Studying", and Other School Factors for the Rurban Sample----------- 124

69. Significant Correlations Between the Indicators, "How Far R Expects to go in School" and Other School Factors for the Rurban Sample---------------- 125

70. Beta Weights and F Values for School Variables Related to Differences in Academic Achievement of Siblings in the Urban Area------------------------------ 127

71. Significant Correlations Between the Indicator "Positive Teacher Relationships" and Other School Variables for the Urban Sample------------------------- 128

72. Significant Correlations Between the Indicator "Frequency Study at Home", and Other School Factors for the Urban Sample---------------------------------- 129

73. Significant Correlations Between the Indicator, "How Far Expect to go in School" and Other School Factors for the Urban Sample---------------------------------- 130

74. Significant Correlations Between the Indicator, "Difference Between Father's Educational Aspirations for Adolescent and Adolescent's Educational Aspirations" and Other School Factors for the Urban Sample- 131

75. Significant Correlations Between the Indicator, "Total Peer Help With Homework", and Other School Factors for the Urban Sample------------------------- 132

76. Significant Correlations Between the Indicator, "Preferred Mode of Learning: Discussion and Teacher", and Other School Factors for the Urban Sample-------- 133

77. Summary Across Areas of the Indicators--------------- 135

78. Variables From Four Dimensions Included in Summary Regression Analysis---------------------------------- 139

79. Step Number and Beta Weights for Significant Indicators From the Four Dimensions----------------------- 140

80. Significant Correlations Between Demographic and Family, Self, and School Indicators----------------- 141

List of Tables
(con't.)

Table Title Page

81. Significant Correlations Between Family and Demographic, Self, and School Indicators----------- 142

82. Significant Correlations of Self with Demographic, Family, and School Indicators------------- 144

83. Significant Correlations of School With Other Sets-- 145

84. Number of Indicators Selected From Each of the Four Dimensions------------------------------------ 147

85. Step Number and Beta Weights for Significant Indicators From Four Sets for the Rurban Area-------- 147

86. Significant Correlations Between Demographic and Family, Self, and School Indicators--------------- 149

87. Significant Correlations Between Family and Demographic, Self, and School Indicators-------------- 150

88. Significant Correlations Between Self and Demographic, Family, and School Indicators------------- 151

89. Significant Correlations Between School and Demographic, Family, and Self Indicators-------------- 152

90. Number of Indicators Selected by Step-Wise Regression From Each of the Four Dimensions---------- 154

91. Step Number and Beta Weights for Significant Indicators from Four Sets for the Urban Area------- 154

92. Significant Correlations Between Demographic and Family, Self, and School Variables for the Urban Sample-- 156

93. Significant Correlations Between Family and Demographic, Self, and School Variables for the Urban Sample-- 158

94. Significant Correlations Between Self and Demographic, Family, and School Variables for the Urban Sample-- 159

95. Significant Correlations Between School and Demographic, Family, and Self Variables for the Urban Sample-- 162

CHAPTER I

INTRODUCTION

The principal investigator has had a long term interest in the study of the coping behavior of persons -- the ability to overcome obstacles and function more effectively.

The focus of this study could have been on those who did not succumb to adversities such as drug addition, crime, alcoholism, or mental illness in areas where the frequency of occurence of these phenomena are high. This however would be a negative approach to the concept of coping behavior. The focus then would be on those who did not fail.

Zimmerman, (1960), in his book, Successful American Families, stated that in different periods of time there had been the need for the production of a different kind of person for the survival of the society. At times there was a need for a farmer, warrior, priest, or skilled artisan. In order for persons to cope with the demands of this more complex society today he feels there is a need for a more highly educated person. One of the criteria he set for a successful family was its ability to get its children through high school so they and the society could more effectively cope with their problems. But many children never get to high school, they have already dropped out.

The focus of this research is on those who were managing to do well in junior high so they would be in line to continue into senior high school with the ultimate goal of graduation.

Junior high school children have been in school long enough to establish a pattern of school performance and school attitudes but not in school so long that they would have already dropped out if it became too difficult. Knowledge gained about the sibling who was achieving at a higher level in junior high could be used to help other adolescents become more effective school copers.

Grade point average was selected as the best single index of school achievement, and differences between siblings in grade point average was the dependent variable.

There are some limitations to this index. It is not only a measure of school performance but is to some extent a function of the child's ability to meet the demands of socialization to the norms for school behavior. Eshleman (1971), refers to school grades as the School Academic-Adjustment Score. Regardless of this contamination, persons external to the school system utilized these scores in judging the competence of the person for his future.

The understanding of the study of differential coping behavior of siblings in school is useful in its own right. However, it is hoped that generalizations can be made about how to help people cope with other life situations more effectively.

UNIQUE FOCUS OF THIS STUDY

A number of studies have been done comparing the effective with the non-effective, but there has been no adequate control for the social and familial setting, and simplex solutions have been offered. Statements have been made that factors such as better housing, better nutrition, better teachers, better school buildings, more effective parents would produce children who would be able to utilize whatever opportunities were available to them. Most of the above factors may well be beneficial. Yet there is the uncomfortable finding that while gross differences exist between the academically successful and non-successful, there are many deviations from the predicted. Some children fail when the environmental factors are in their favor, while others succeed in spite of many obstacles.

There have been three large scale and many smaller studies which have established the facts about the gross differences between those children who have been more and less effective in school. In addition to Zimmerman's, there have been three other large scale studies. These were Project Talent, The "Coleman Report", and the Youth in Transition study by the Institute for Social Research at the University of Michigan. Each of these very significant studies was concerned with studying differences in school and personal ecology, but they had little control over the factors built into their research design.

A laboratory-type, but naturally occurring field intervention study was needed to try to account for the variability between children when the family and school factors were held constant. The present study accepted this challenge. Two persons, exposed to the same stimulus of family and school, were studied to determine their differential perceptions of these stimuli and their differential responses.

The general hypothesis was that if a factor operated to influence school achievement between two children in different families, the same factors would operate within a single family. For example, the Youth in Transition Study found that lower achieving boys had less positive relations with their families than did higher achieving boys. (eta = .21 Bachman 1970 p. 169). Would this same finding hold up for differences between two siblings within the family? Would the child who was doing better in school perceive his parents more positively than his sibling who was not doing as well?

Is the difference reported in this finding a function of differences in the families of achieving versus non-achieving boys, or is it a function of differential perception of the same phenomena by achievers and nonachievers within the same family. Is the same behavior on the part of parents differentially effective for certain children, i.e., does conflict in one family keep a recalcitrant child from becoming more of a problem while in another it creates a problem child?

Is it possible that a school described by an external observer as having certain characteristics, would be perceived differently by siblings, and that their differential perceptions were in the direction that would be predicted from other studies focusing on groups of achievers and non-achievers.

THEORETICAL MODEL:
THE RELATIONSHIP BETWEEN THE FOUR SETS OF VARIABLES AND THE DEPENDENT VARIABLE.

The four sets of variables are: the demographic characteristis, family relationships, self perceptions, and attitudes toward school.

Noninteractive Model. The most direct model is to have each of the four sets of variables relate independently to the dependent variable. This model assumes that the cause and effect relationships are in one direction--from the independent to the dependent variable--and assumes that the independent variables are independent of each other. This model is latent in much of social science research where an attempt is made to emulate classical physics. It is testable in the current study by determining the extent of interdependence of the independent variables and the extent to which they have unique and non-shared relationships with the dependent variable. This model is an appealing conceptual framework, but as with most social science variables, the cause and effect relationships are frequently multi-directional.

Interactive Model. A completely interactive model assumes that each variable interacts with, and influences each of the others equally. The test for this model is whether all of the variance among the independent variables is shared and none is unique.

This model had obvious limitations. It is not likely that a higher self concept or positive family relationships can cause racial or religious differences, although research does show that positive family relationships usually result in a better self concept.

Differentiated-Interactive Model. A third model probably best fits the real situation and is the one proposed for the present study. This model assumes a set of relationships among the independent variables but still assumes they have an independent quality. Differential weighting of the direction of causality is assumed, but mostly the dependent variable is the effect.

The test for this model is that while there is some shared variance among the independent variables, they are more differentiated than not.

Some examples of directionality are in the literature. Although demographic factors may be thought of as primarily unidirectional, Zimmerman's whole thesis is that if a child does well in school, he then becomes a successful adult and has the requirements for upward mobility in the social system. This success may indeed reflect back on the family and ultimately make it possible for this child to provide a better demographic basis for his own child.

There is an assumption that the family has a greater effect on the self and school perceptions than vice versa. Interactions are likely to be stronger for the relationship between the self concept and school perceptions. Children who have positive self perceptions will more likely have positive attitudes toward the school. However, the opposite direction is quite likely. Liking school, especially if associated with doing well, may influence the child's self attitudes.

The four sets of variables will be discussed next.

DEMOGRAPHIC VARIABLES

These variables generally include those that the two children held in common with each other. Many studies have pointed up the importance of such variables as social class, race, religion, marital status of parents, and of family size. Most of these characteristics have been studied across families.

Since the focus of the present study was on differences within families, the magnitude of this difference became a fact which could be related to background characteristics of the family. It was possible to look at race, class and family size as they affected the amount of difference between siblings. Were siblings more apt to be different from each other in lower class or in upper class homes? Did the geographical area make a difference?

Another set of demographic characteristics were properties of the child,- i.e. his age, sex, or his IQ. For each of these characteristics, the child was considered in contrast to the sibling. Their differences were computed and these scores became the focus of the study. This method allowed answers to questions about intra-family properties, rather than about the characteristics of independent individuals. Did older children do better in school than did the younger? Did the child with a higher IQ do better than the sibling?

FAMILY RELATIONSHIP VARIABLES

The relationship between the family and school as interacting systems is an important element of this study, e.g., if there was a high importance attributed to education by the parents, was this reflected in a higher level of performance by the children in school than if the parents did not value school as highly? Did parents who treated their children with love and respect have children who did better, or was pressure and conflict necessary for achievement? If these variables operate generally, do they also operate differentially within the same family? What was the place of sibling relationships as motivators for school performance? Does sibling rivalry help or hinder?

If family factors are important in the development of high performance in school, could programs be devised to modify the family so that children will do better? It might be that effort expended in one social system, the family, would have reverberations in another, the school.

Much of the research on parent-child relationships assumes that both the mother and the child are constant and replicable, and do not allow for variability by the mother's child rearing attitudes and practices according to the differing charactertistics of her children. Such variability has been minimized by research methodology either by describing a particular kind of child, a specific problem, or attempting to get at a parent's overriding attitudes about child rearing. Should a parent have a different philosophy or practice dependent upon the particular child and his characteristics, these differences might have been interpreted as indicating low reliability. The assumption of this study is that a parent may vary from one child to another in her child rearing attitudes and practices.

The home is viewed as part of the infra-structure necessary to the production of success in the school. Should there be no differences between academically successful and nonsuccessful children on such variables as independence training, use of space, participation in home activities, etc., then less attention might be paid to these factors, as related to school achievement, although they may be very important in other ways. Should the two children utilize the home differently, then programs could be devised to increase the positive use of the home by the child who did not use it as well.

There is an interesting theoretical issue upon which this study may throw some light. If it were found that parents were similar in their treatment of the two children, parent-child relationships could be considered a characteristic of the parent, and this would be evidence for the "trait" theory of behavior. On the other hand, if parents were found to respond differently to each of their children, then it could be assumed that their responses were interactive. Under these circumstances there would be evidence for a "field" theory explanation. Behavior, to paraphrase the words of Kurt Lewin, is a function of the interaction of the person and the situation.

The kinds of family relationships within a family may be determined in part by the demographic characteristics of the family. Many studies, including the Youth in Transition study, have shown that differences between families in their social class, religion, etc., may have a marked effect on how much control, love, pressure, or school help families will be able to give. This study explored the relationship between these demographic factors and family patterns.

Variables were grouped into four categories: mother-child, father-child, family climate, and sibling relationships.

SELF PERCEPTION VARIABLES

There has recently been a good deal of interest in variables such as self esteem, locus of control, perception of self as active or passive, identification with significant others, differentiation from parents, self acceptance, conformity to social demands, having a Machiavellian or marketing personality, and being anomic. The assumption is that if one child has more of a constellation of these factors, than the sibling, they will influence how he does in school.

An assumption of this study is that the childs' self perceptions are a function of his family relationships which in turn are a function of the characteristics of the family. On the other hand, the value of the study is not determined by this hypothesis, and the findings about the self and the dependent variable can stand on their own merit.

Did children who had a higher level of self esteem than the sibling do better in school than that sibling? There is abundant evidence from other studies that this would be so. These studies, however, usually do not have a control for school, and even more importantly, for the family. Perhaps there is a contamination between family relationships and self factors. If the finding holds up that the child who has a higher level of self esteem or any of the other self variables than does the sibling, we may have more confidence about the relationship between a self concept variable and school performance.

Theorists of developmental psychology; Fromm, Erickson, Freud, Sullivan, Mead and others, have proposed that although intra-family relationships are very signficant to an under standing of the individual, relationships with significant others outside the family setting are also germane. Perhaps the child who has become a success in the school setting has done so because of an aleatory event which brought him a relationship with some other person -- teacher, group worker, peer, guidance counselor or relative -- while his sibling did not have such good fortune or perhaps encountered a number of negative influences.

This important dimension of significant others was originally perceived as being separate from the other areas of the study but for parsimony was included as part of the self.

The variables were classified into three groups: the personal self, the self and specific others, the self and generalized others.

ATTITUDE TOWARD SCHOOL VARIABLES

A student's attitudes toward school loom as significant variables in understanding school accomplishment. The cause and effect chain however, is not as clear. Does a positive attitude toward school create a climate for better achievement or does having good grades make it possible for the child to feel good about going to school. It is more likely that the direction of causality is circular? If a child likes school, he is more open to learning, which helps him to do well, which reinforces his positive attitude.

If schools tend to meet the needs of the child, it is more likely that he will like being there. One of the areas of investigation of the study is to find out what kind of instruction the child would like. The interaction between personality typology and preference for type of instruction was one of the thesis done on these data. (Portnoy)

Several excellent studies have been done about the predictions of the child's likelihood of being an academic success, e.g., Mink (27) and Smith (33). There is a fair amount of consensus that the school failure of a future dropout is a child who was achieving at a lower than average level, was becoming truant, and had a negative attitude toward school. The child's decision to drop out of school was usually based on his realistic assessment that at the moment he was doing quite poorly and was unlikely to succeed unless there was some significant change.

Whether there are attitudes toward the school setting which are characteristic of children who are at a set level of academic achievement, i.e., succeeding or failing, or whether the attitudes toward school are consistent within the families, will be explored.

Another aspect of school related variables was the study habits of the children. Who did they seek help from, where did they study, what kind of study atmosphere did they prefer, how often did they study? Most important however was the relationship between differential school performance and study habits.

The last part of the school related variables were attitudes toward peers. This set of variables was first kept as a separate set but for conceptual reasons and because of the need to keep the number of dimensions to a minimum, it was combined. The attitudes toward siblings was crucial in determining attitudes toward school in this study, as in others. If the peers did not have a positive attitude toward school then it seemed likely that the child would also not have a readiness for learning. Personality theorists have placed identification with peers as occuring during this early adolescent period. Would school achievement be fostered by this identification or would family identifications be more functional for learning? If the latter, then different kinds of programs might be developed than if the former. If peer relationships are crucial to learning, then it may be that modifying these relationships, as proposed in the Coleman report, may be the significant factor. If however, the family relationships are more crucial, then perhaps more attention should be placed in this area.

The four groupings of variables were: attitudes toward teachers, attitudes toward school, preferences for type of education, relationships with peers and significant others, and study habits and preferences.

THE EFFECT OF THE SCHOOL CLIMATE

A recent study by Blackwell,(1970), sponsored by the U.S. Office of Education, found that there were significant school effects remaining after the author had carefully accounted for other differences such as size of town, size of school, budget, social class, and racial composition. In other words there was a school climate effect that eluded definition by the usual demographic analysis. The present study holds constant the school effect by having both children going to the same school. Differences between the two children in school attitudes can be attributable to differences in the way the two children experience the phenomenon of the school. One child may find ways to do well in an otherwise poor school while the sibling may not take advantage of the opportunities available to him. Knowing how children utilize the resources available to them may be of help designing services for children that will promote academic effectiveness.

RESEARCH DESIGN FOCUS

This study is unique in that it not only has a difference score for the dependent variable but also has attempted to cope with a dilemma of step-wise multiple regression. This problem,found in many studies using this very useful statistic,is that the first variable included in the regression formula has not only the unique contribution of that variable but also has its share of the variance held in common with the other variables. The remaining variables have only their unique contribution after controlling for the effect of those already entered into the regression equation. In other words, it may appear that the first few variables, and especially the first one entered into the equation, are more important in explaining the dependent variable than they really are, while those entered later will appear to be of less importance. A group of scholars re-analyzed some of the data from the Coleman study and reported their findings in a report sponsored by the Office of Education, "Do Teachers Make a Difference?" In this report there was a proposed method for partitioning variance among a number of variables. The consequences of this method are that it is possible to indicate the relative importance of a group of dimensions. In the present study, with its focus on four major dimensions, the unique and shared variance attributable to each can be differentiated.

It was possible to decide whether family background, family relationships, self concept, or school attitude variables had the greatest impact on the dependent variable. From this finding recommendations were made for priorities in ways to help children do better in school.

THE THREE SOCIO-GEOGRAPHIC AREAS

Teen-agers were studied from three geographic areas selected to represent three different types of populations in the United States. The rural sample selected in West Virginia was to represent the rural poor living in fairly remote areas away from centers of population which would provide employment opportunities and larger schools. The rurban sample in upstate New York was composed of teen-agers from small to medium sized towns and the areas dependent on them. This area was of a higher social class with more educational pressure. The urban sample, selected in a large metropolitan city, had 45% black teen-agers attending center-city schools, to represent the urban ghetto.

American society is very urban oriented now and the very real problems of the rural poor are not being given much attention. A recent study by Fitchen of "Road Junction,"a rural pocket of poverty, documents the unique attitudes held by rural persons living in an isolated area.

The rurban area, and others like it throughout the country, with several universities and colleges, have high educational interests and stimulating environments for children. These areas may well be the half way places for persons moving to and from rural and urban areas. The rurban areas have been even less well studied than either the rural or urban settings.

The urban areas are currently a major interest for many universities. Although the current study sampled a large number of blacks, 55% of the sample was not black, thus giving wider spread to the applicability of potential findings and allowing for comparisons within the area.

These families had a good deal of mistrust of the schools as social institutions which did not meet their needs and which degraded them.

The same instruments were used in the three cultures and an effort was made to use the same data gathering procedures in the three areas so that comparisons would be possible. Whether differences in the findings were due to sampling variations between areas cannot be determined, but it is likely that variations found were coupled with other factors associated with residence in each of the three areas.

Programs are generally nationwide in scope. Should there be no differences in the factors related to academic achievement among the three geographic settings it would lend support to the concept of identical nationwide application of programs. On the other hand, should wide regional differences be found, the specific implications of the findings for differential application of national programs would be drawn.

CHAPTER II

SUMMARY OF RESEARCH PROCEDURES

Schools in the three geopgraphical areas were contacted to locate all families with two children from the same family attending the same junior high school. In order to obtain approximately equal sample sizes, four schools were contacted in center-city Syracuse, eleven schools in rurban New York, and 45 schools in rural West Virginia. In each area the population of father-absent families meeting the critera were studied, and an equal number of father present families were randomly selected from the population of families with fathers.

The final sample consisted of 846 children, or 423 sibling pairs, divided by geographical area as follows:
Rural: 135 families, 64 father-absent, 71 father-present.
Rurban: 144 families, 70 father-absent, 74 father-present.
Urban: 144 families, 69 father-absent, 75 father-present.

All children were interviewed in a 1½ hour interview for which the respondents were paid. The interview schedule was precoded and locally trained interviewers were used.

School grades for the last two years for 8th and 9th grade students, and the last semester for 7th graders were used as a basis for determining the grade point average differences between the two children. IQ scores were obtained for all children. Lorge-Thorndike scores were the most frequently available scores and others were converted to Lorge-Thorndike norms to allow for comparability.

The interview schedule included questions from a number of sources. Whole scales from previously validated measures, selected items from other scales, and items derived from the pretest were all subjected to factor analysis. After refinement, a total of 63 factors were derived from 218 items. Factors were grouped into 13 sets in the family section, 9 in the self section, and 10 in the school section. The demographic section included standard, as well as specially developed items which were not factor analyzed.

All of the variables in the family, self and school sections, and several of those in the demographic section were difference scores between the values of the item found for the two siblings. In computing these differences, the score of the less achieving child was always subtracted from that of the more achieving child. The sign of the variable, therefore, is an indication of which sibling had more of, or was more characterized by, the variable in question.

A Key to Variables will be found in the Appendix and any variable discussed in the findings can be identified by matching the number of the variable with its appropriate number in the Key. The Key includes the coding and full description of the separate variables and the names of factors which are further described in the List of Factors, also found in the Appendix. Certain demographic variables are non-difference scores since they were characteristics of the families and were, therefore, constant for the two children. These variables are so designated in the Key.

Statistical procedures are discussed in the next chapter An index to factors follows this discussion.

The following materials are found in the Appendix.

APPENDIX A.	Partitioning of Variance Procedure.
APPENDIX B.	Key to Variables.
APPENDIX C.	List of Factors.
APPENDIX D.	Details of Research Method, including Sampling method Description of the Sample. Interviewing procedures. Conversion of Scores. Factoring procedures.
APPENDIX E.	List of Cooperating Schools.
APPENDIX F.	Copy of the Questionnaire.

INDEX TO FACTORS

SELF

Set A - BEST WAYS TO GET AHEAD IN LIFE

Self-1: Machiavellian Personality (Knowing the Right People) Gets One Ahead in Life
Self 2: Marketing Personality Gets One Ahead in Life

Set B - CONFORMITY

Self-3: Personal Integrity
Self-4: Conformity for Approval From Others
Self-5: Competitive Individualistic Value
Self-6: Conformity to Adults

Set C - BLACKWELL SCALES

Self-7: Normlessness
Self-8: Subjective Socio-Economic Status
Self-9: Self-to-others Belongingness

Set D - RESPONSIBILITY

Self-10: Responsibility for Care of Own Things in Home
Self-11: Responsibility for Family Chores

Set E - LOCUS OF CONTROL (ROSEN-ROTTER)

Self-12: External Locus of Control

Set F - SELF ESTEEM

Self-13: High Self Esteem--Personal Characteristics
Self-14: Rosenberg (Low) Self Esteem Items

Set G - ATTITUDES ABOUT RULES

Self-15: Acceptance of Rule-Breaking by Peers

Set H - PERSONAL VALUES

Self-16: Personal Value: "Good Child Role"
Self-17: Personal Value: Individualism
Self-18: Personal Value: Social Conformity

Set I - MOTHER'S VALUES PERCEIVED BY R

Self-19: Mother's Value: "Good Child Role for R"
Self-20: Mother's Value: Individualism for R

Self-21: Mother's Value: Social Conformity for R

SCHOOL

Set A - ATTITUDES TOWARD EDUCATION

School-1: Education is Valued
School-2: Negative Valence Toward School

Set B - EVALUATION OF TEACHERS

School-3: Positive Teacher Relationships
School-4: Negative Attitude Toward Personal Teacher Characteristics

Set C - PREFERRED MODES OF LEARNING IN SCHOOL

School-5: Preferred Mode of Learning: Teacher and Discussion
School-6: Preferred Mode of Learning: Other Students

Set D - ATTRACTIONS TO SCHOOL LEARNING

School-7: Positive Situational Influences for Learning in School
School-8: Prior Interest an Influence for Learning in School

Set E - DETRACTIONS FROM SCHOOL LEARNING

School-9: Negative Situational Influences for Learning in School
School-10: Lack of Personal Involvement is a Detraction from Learning

Set F - STUDYING ENVIRONMENTS

School-11: Studying in Social Environment is Desirable
School-12: Studying in Academic Environment is Desirable

Set G - DEPENDENCE UPON PEERS

School-13: Academic Dependence Upon and Social Need of Peers
School-14: Group Membership and Peer Approval
School-15: Self-Directed Independence from Peers

Set H - EVALUATION OF PEERS

School-16: Positive Evaluation of Peers

Set I - SOCIABILITY IN SCHOOL

School-17: Active Sociability in School

Set J - SMITH-MINK ITEMS

School-18: Good Academic Standing (Smith-Mink)
School-19: Participation in School (Smith-Mink)
School-20: Activity in Organizations Outside of School
School-21: "Good Student" (Smith-Mink)

FAMILY

Set A - MOTHER'S CHILD REARING PRACTICES FOR R

Family-1: Warm Democratic Mother
Family-2: Authoritarian Mother
Family-3: Pressuring Mother

Set B - MOTHER'S CHILD REARING PRACTICES FOR R, SHORT FORMS

Family-4: Warm Democratic Mother for R - Short Form
Family-5: Authoritarian, Pressuring Mother for R, Short Form

Set C - MOTHER'S CHILD REARING PRACTICES FOR SIBLING

Family-6: Warm Democratic Mother for Sibling - Short Form
Family-7: Authoritarian, Pressuring Mother for Sibling - Short Form

Set D - FATHER'S CHILD REARING PRACTICES FOR R

Family-8: Warm Democratic Father
Family-9: Authoritarian Father
Family-10: Pressuring Father

Set E - MOTHER-CHILD CONFLICT

Family-11: Mother-child conflict

Set F - PARENTAL RULES

Family-12: Parental Rules for R's Conduct

Set G - SEX ROLES IN FAMILY DECISION-MAKING

Family-13: Father Power in the Family

Set H - DECISION MAKING INVOLVING R AND PARENTS

Family-14: Child Power of R in the Family

Set I - DEPENDENCE ON PARENTS

Family-15: Loyalty to and Empathy with Parents

Family-16: Financial Independence of Parents

Set J - COMPETITION BETWEEN TWO SIBLINGS IN STUDY

Family-17: (Absence of) Sibling Competition

Set K - INTERACTION BETWEEN TWO SIBLINGS IN STUDY

Family-18: Frequent Sibling-R Interaction

Set L - EFFECT OF A MOTHER WORKING (ATTITUDINAL)

Family-19: Mother Who Works Has a Positive Effect
Family-20: Mother Who Works Has a Negative Effect

Set M - HISTORY OF MOTHER ACTUALLY WORKING DURING R'S LIFE

Family-21: Mother Working Most of Time During R's Education

CHAPTER III

FINDINGS RELATED TO RESEARCH DESIGN

There were five main questions which related to the logic of the study rather than its substance, and which determined the statistical procedures to be used. These questions are presented here with a discussion of the implications of alternative findings, the statistical technique used to determine the answer to the questions and the findings.

I. Was there sufficient variability in the dependent variable?

A. Discussion:

A dependent variable of differences between two siblings within the family, while an exotic phenomenon, was crucial to the intent of the study. Having two children from the same family was a control for the many social class, religion, neighborhood and housing variables which have been used in the past to explain achievement differences. It would be likely that the two children from the same family would get quite similar grades.

Having two children going to the same school controlled for the climate of the school, grading practics and attitudes of school personnel toward children of given family characteristics.

With these two stringent controls, would the differences between the two children's grade point averages be greater than zero? If there were no differences between children in the family there would be no phenomenon to study.

B. Procedure for testing:

The differences between the grade point averages of the children were computed with the score of the lower achieving child subtracted from that of the higher achieving child. The mean of these differences was tested to determine whether the mean was significantly greater than zero for each geographic area.

C. Finding:

In each area the difference was found to be statistically different than zero, as shown in the table.

Table 1

Means, t-Value, for Significance of the Difference Between Siblings on Academic Achievement for Rural, Rurban and Urban Areas.

Area	Mean	Standard Error	t-value	N
Rural	.67	.06	11.17***	135
Rurban	.55	.04	13.75***	144
Urban	.54	.04	13.50***	144

*** p = .001

D. Conclusions:

The differences between the two siblings were sufficient to provide a basis for further study to find the relationship between these differences and the independent variables.

II. To what extent was the dependent variable explained by the independent variables.

A. Discussion:

Studies have been done showing that children with different parental behaviors, going to different schools, and with different self concepts turned out to achieve differently in school. When all of the regular variables found to be significant were controlled for, as in this study, would there be any relationship of independent variables to the dependent variable of grade point average differences between the children in the same family?

Would it be possible to find that an achieving child would perceive his mother as pressuring and demanding while his sibling, who was doing less well in school, did not perceive her this way? Differences between the two sibs on the independent variables, to be significant for this study, had to show differences which were consistent across enough sib pairs in favor of the achiever or the nonachiever to show a statistically significant trend.

Under these stringent conditions, it would not be surprising to find that there were no consistent trends. Furthermore, it would be very surprising to find trends which would be consistent with the findings of other studies which did not study two children in the same family.

If significant relationships were found, it would be possible to generalize with more confidence to practical attempts to improve the academic coping behavior of children.

B. Procedures for testing:

There were two ways to test whether the study variables explained the dependent variable. The first was whether there were more correlations between the independent and dependent variables than would be expected by chance. Although there were, this was not considered adequate as evidence since it was possible for a large number of correlations with the dependent variable to be statistically significant but for the correlations to be highly related to each other and only account for a small amount of the variance.

The more adequate test was to discover whether the regression was greater than would be expected by chance. A multiple regression was done for by each of the three geographic areas so findings are shown in the table below.

C. Findings:

Table 2

Overall Results for Multiple Regressions in Rural, Rurban and Urban Areas

Area	R	d.f.	F
Rural	.76	33/101	4.03***
Rurban	.68	27/116	3.60***
Urban	.72	35/108	3.28***

The F values of the multiple regressions were significant beyond the .001 level for each of the three areas.

D. Conclusion:

The amount of variance accounted for by the independent variables was high and it is therefore appropriate to look to the individual variables to discover the source of this variation.

III. Could the three socio-geographic areas be considered as basically similar to each other in the types of relationships between the independent and dependent variables or were they significantly different?

A. Discussion:

If there was substantial agreement among the three areas about the variables considered significant, even though the order of inclusion might vary somewhat, then the three areas should be kept separate and be considered as different subcultures within American society.

B. Procedure for testing:

In order to have the most stringent, and at the same time the most flexible test of the differences among the three areas, the comparisons were done separately for each of four content dimensions. The procedure was as follows:

1. All independent variables were grouped into four content sets: Demography, Family, Self and School.
2. The total pool of items in each set was run as a seperate regression for each area.
3. Significant variables from each set for each area were determined by stepwise regression.
4. The three geographical areas were compared. Criteria for determining that areas were similar were that the same variables were significant, even at different steps and that the sign of the beta weight had to be in the same direction in the three areas.

C. Finding:

The four content sets had quite different significant items in each geographical area, as will be reported in detail in the next chapters.

As an example, the demographic variable, IQ, was found to be significant in all three areas and was in the same direction--children with higher IQ were achieving better than their sibling but no others met all of the above criteria. Some variables, for example, mother--child conflict, were significant in all three areas but had different signs. In one area mother-child conflict was functional and related to higher achievement, but in the other two areas it was disfunctional and related to the lower achieving child.

D. Conclusion:

The three geographical areas had to be considered separately and could not be thought of as one common culture. The remainder of the report presents the findings in detail for each area.

IV. Is the amount of variance attributable to each of the four dimensions large enough so that they can be considered as separate dimensions?

A. Discussion:

If the four have a sufficient amount of variance attributed to them for each of the areas, then they should be retained as separate entities for further analysis. If any one of the dimensions does not have sufficient variance, it should either be eliminated or if its variance is represented by another of the dimensions, then it should be combined with it.

B. Procedures for testing:

The statistical procedure used to determine the amount of unique and common variance was the Partitioning of Variance technique, described by Mood (1971), where he calls attention to the work done on the "Coleman Report". In a report on the re-analysis of the Coleman data, the difficulties with the standard step-wise regression procedure, as used for the Coleman report are described. The first step selects the variable which accounts for the most variance. If this first variable is highly correlated with another, that second variable may emerge many steps later since most of its effect has been taken off by the first variable. If the second variable had been selected first, the other one would have been low on the list for the same reason. The partitioning of variance model was developed by Mayeski and others (1970) to cope with this problem and make it possible to determine the amount of unique and common variance attributable to a group of variables.

As conceptualized by these writers, variables which are found to be significant in educational research are most likely to be highly correlated with one another. The ones which are selected by the step-wise regression procedure may best be thought of as "indicators" for all those other variables with which they are correlated. Since the variable selected for the second and subsequent steps is the one which adds the most new variance to the equation, it is probably an indicator for other variables which are likely to correlate highly with it, but not with the variable selected at step one.

In educational research it is possible to group variables according to some intuitive model which may or may not be aided by factor analysis. For purposes of the Partitioning of Variance Model, these intutitive groupings are called X. Each X is thought of as being indexed by a number of x's. These x's are the indicators described above.

In the present study the following steps were taken to partition the variance according to the Mayeske model.

(1) Each set of variables, Demography, Family, Self, and school variables, was designated an X: Demography X_1, Family X_2, Self X_3, and School X_4. Grouping of items was by factor analytic techniques or where the relationships were obvious, by straight forward assignment. Assignment was most obvious for the demographic set.

(2) Each variable found to be significant on the step-wise regression analysis of each set for the three areas was thought of as an x, and designated as an indicator.

(3) Its meaning as an indicator was determined by studying its patterning of relationships with other x's within a dimension.

(4) All the indicators (x's) from the four dimensions (X's) found to be significant within one geographical area were put together into a summary regression analysis and the amount of variance accounted for by the significant items was determined and designated the Grand R^2 for total, or the amount of variance accounted for by all the significant indicators.

(5) Fourteen more multiple regressions were done to determine the amount of variance for each of the single X's and all possible combinations. There were four regressions for the unique effect of the X's themselves, six for the combinations of two X's at a time, four for the combination of three X's adding the regression for the Grand R^2, there were a total of 15 regressions performed. The results of these 15 regressions are found in the appendix.

(6) By means of a series of subtractions, from the data derived from step 5, the unique and common variance attributable to each of the four X's was determined. The formula given by Mayeske had several errors. The corrected procedure is given in the appendix.

(7) By dividing the shared variance for each combination among the component X's to which the shared variance was attributable, the sum of shared variance for each was determined. For example, in the rural area the variance shared by X1 + X3 was 2. When 2 was divided into the two components, X1 and X3 each got 1 point added to its sum of shared variance. In the same area, X1 + X4 is shown to have 5 units of shared variance. Dividing 5 into two parts, X1 and X4 each get 2.5 units of shared variance added to their totals.
The results of this partitioning of variances is given in the append x.

(8) The total amount of variance attributable to each X was derived by summing its unique and its portion of the shared variance.

(9) The total amount of variance for each X was converted to a percent score so that straightforward comparisons could be made both within an area and between the three areas.

C. Finding:
The total variance for each of the four dimensions, including the unique and shared, is found in the next table.

Table 3

Percent of Accounted for Variance Among the Three Geographic Areas.

Dimension	Rural % R^2	Rurban % R^2	Urban % R^2	Total
Demography	24	38	34	32
Family	24	12	15	17
Self	28	26	26	27
School Attitude	25	23	25	24
Total %	101	99	100	100
Total R^2	57	46	52	

Looking at the average percentage for the 3 geographical areas, the percentage attributable to the four dimensions was not equal but ranged from 17% for the family dimension to 32% for the demography with self and school each accounting for about one quarter of the total variance. The greatest spread was found in the rurban area where 38% of the variance was attributable to the demographic dimension and only 12% to the family. There was however, no dimension which had most of the variance and none which did not explain some.

D. Conclusion:

There was a sufficient amount of explained variance for each of the four dimensions so that they may be kept separate for purposes of analysis. The substantive findings about each of these dimensions and their indicators as they relate to the dependent variable is the major portion of this report.

Since the demographic factors seemed to have more importance in the rurban and urban areas, special attentions should be paid to demographic variables in those areas.

V. Which of the theoretical models supported by the findings?

A. Discussion.

If all the variance is unique, then the non-interactional model is supported. If all of the variance is shared then the interaction model has been substantiated. If there is a combination of the two then there is support for the differentiated interactional model.

B. Procedures for testing:

In addition to all the steps needed in question IV, there is an additional computation needed for this question. By placing the unique variance in the numerator and the shared in the denominator, a ratio between the two was computed. The larger the above 1, the most support there would be for the non-interactive model in that there would be less shared and more unique variance for that dimension. A ratio under 1 would indicate more shared variance and less unique for a given dimension. Differences between dimensions would show the need for some combination of models to explain the differences.

C. Finding:

The following table presents the results of the partitioning of variance, dividing the variance into its unique and shared components and deriving a ratio to express the relationship between these two.

Table 4

Ratio of Unique To Shared Variance for the Four Dimensions in the Rural, Rurban, and Urban Areas.

Dimension	Rural	Rurban	Urban	Mean
Demography	2.00	2.84	2.84	2.56
Family	2.00	1.13	.66	1.26
Self	1.28	.96	2.84	1.69
School Attitudes	.75	.88	2.13	1.25
mean	1.51	1.45	2.12	1.69

As can be seen in the table above, the overall mean ratio of the three areas and four dimensions was 1.69, with considerable variability between geographical areas and between dimensions.

D. Conclusions:

Neither the non-interactive nor interactive model was fully supported.

Differences between areas shows the need to look toward the special conditions of each.

The variability within dimensions indicates support for a model which takes into account the direction of effect.

Demography had the highest proportion of unique to shared, thus suggesting that although it affected other dimensions, there was less chance of other areas acting back to effect demography. The hypothesis of increased interactions as one moved farther from the setting of the family was borne out in both the rural and rurban areas, that is, demography was most likely to have least shared since direction tended to be one way - school attitudes on the other hand, were likely to be influenced by and to influence other areas and consequently had the highest amount of shared variance. The hypothesis was not borne out in the urban area where it appeared that the family was the most interactive, sharing more variance with the other areas.

The findings support the differentiated interactive model.

CHAPTER IV

FINDINGS UNIQUE TO EACH OF THE FOUR DIMENSIONS

THE DEMOGRAPHIC VARIABLES

Thirty demographic variables were included in a regression analysis with the dependent variable, the difference between the grade point average of two siblings in the same family.

Unlike other major content areas of this research, the demographic variables were mainly nondifference scores. The variables were stable characteristics of the family that were not different for the two children, such as the presence or absence of a father, his employment, mother's education, the housing situation and the social class, race and religion of the family. These characteristics of the family were determined before the child joined the family and were not subject to change by his efforts. These were the "givens" of the child's situation.

The demographic variables are all standard and do not need special definition except for SEI and the Sex by Achievement item. These two items are discussed in the text at the first point where they are found to be significant.

The dependent variable, grade point average, and five of the independent variables were difference scores for the two children. These were IQ, age, attendance at nursery school, mother's working during the child's preschool and school years, and significant other's education.

The table shows the thirty items which were included in the three area regression analyses, grouped according to an a priori scheme which is shown by the headings above the groups of items. Each item is shown with a notation indicating whether the item is a difference item (D), or a nondifference item (ND). Each item is shown with its number which is the key to that item in the Key to Variables found in the Appendix. Using this number, it is possible to find the exact composition of the variable by consulting the Appendix.

In the table below all the variables are listed, but those shown to be significant on the regression analysis for any area are marked with the number of the step at which they were entered into the regression formula by the stepwise procedure. All items with no number in a geographic area column were not significant according to the criteria set.

Criteria for significance were an R^2 change of .01 or higher, an F value of 2.00 or higher for the significance of the partial correlation when the item was added, and an F significant at the .001 level or higher for the overall regression coefficient when that item was added in the stepwise procedure.

Table 5

Demographic Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables were Selected in Rural, Rurban and Urban Area Samples.

			Step at which selected as significant		
Type	#	Variable	Rural	Rurban	Urban
Father					
ND	66	Father living	3	-	4
ND	4	Father present	-	-	-
ND	65	Parents separated or divorced	-	-	-
ND	467	Father employed	-	-	6
Mother					
ND	109	Mother's education	-	-	7
ND	468	Mother employed	-	-	-
ND	12	Hours a week mother worked	-	-	-
D	415	Mother worked during R's preschool and school	4	-	-
Race					
ND	139	Black	-	5	8
ND	140	Other	-	-	-
Religion					
ND	144	Jewish or other	-	-	3
ND	143	No religion	-	6	-
ND	141	Catholic	-	-	5
Characteristics of the family					
ND	7	Number of male children	-	-	-
ND	8	Number of female children	-	7	-
ND	9	Total number of children at home	6	-	-
ND	463	Number of persons living in house	-	-	-
ND	10	Number of dropouts	9	-	-

Social Class					
ND	469	Socio-Economic Index score	8	-	-
ND	436	Educational things in the home	-	3	-
Housing					
ND	147	Size of town	-	-	-
ND	464	Rooms per person	7	-	-
ND	17	Share a room	-	8	-
ND	471	Have toilet (rural only)	-	-	-
ND	472	Have telephone (rural only)	-	-	-
Child					
D	170	IQ differences	1	2	1
D	13	Attendance at nursery school (Diff.)	5	1	-
Differences between the two children					
D	5	Age differences between two children	2	-	-
D	135	Significant other's education (Diff.)	-	-	-
ND	11	Sex X Achievement. (the higher the score the more female the pair.)	-	4	2

COMPARISON OF STEPWISE REGRESSION OUTCOMES FOR DEMOGRAPHIC VARIABLES IN THREE GEOGRAPHICAL AREAS

Inspection of the table shows that the only item common to the three areas was IQ. Four more items, being black, father living, attendance at nursery school and the sex by achievement item were significant in two of the areas.

It is not surprising that IQ was a significant factor in differential achievement of siblings, but it is interesting that others expected to be related, were not.

Social class, as indexed by the direct measure Socio-Economic Index, was significant only in the rural area, while race, being black, was significant only in the rurban and urban area. The fact that racial differences were significant in only the two areas would be expected since there are very few black people in the rural area studied in this investigation. It is possible that these two measures, SEI and race, are indeed measuring some of the same things but because of the unique qualities of the different areas, different items were the best indices of an underlying factor.

In stepwise regression each additional variable is selected by the stepwise procedure because it accounts for the most variance among the remaining variables. When several variables are highly correlated with each other, the most inclusive and yet unique variable will be selected and the others will not be included. Each item so selected can be thought of as the best representative or indicator of that content area. For this reason, it is of considerable interest to examine the correlates of the selected variables to see if a different variable is an indicator for the same underlying concept in another geographical area.

In the next three parts each geographical area will be examined. The variables which were significant will be discussed in order of their inclusion in the regression, and their correlates will be studied to see if the particular variable is an indicator for a more inclusive underlying factor. If the indicators are not showing similar phenomena for the three areas, the differences within the areas must be discussed to determine what contributes to differential achievement in these three different cultures.

RURAL AREA:
THE RELATIONSHIP OF INDICATORS TO THE DEPENDENT VARIABLE

Selection of the Indicators

The nine variables significant for the rural area are shown in the table with the Beta weights and F Values.

Table 6

Beta Weights and F Values for Demographic Variables Related to Differences in Academic Achievement of Siblings in the Rural Area.

Type*	#	Variable	Beta	F
D	170	IQ	.22	7.18
D	5	Age	.19	5.73
ND	66	Father living (not dead)	.16	3.57
D	415	Mother worked during R's childhood	-.14	2.98
D	13	Attended nursery school	.14	2.79
ND	9	Number of children at home	-.21	4.73
ND	464	Number of rooms per person	-.19	3.42
ND	469	Socio-Economic Index	.15	3.00
ND	10	Number of dropouts in Family	.10	1.53

The variance accounted for by the 9 variables was .20 and the multiple correlation was .45 (d.f. = 9/125),F equals 3.56, significant at the .001 level.

In the discussion of each indicator which follows, correlations of .22 (.01 level) or higher will be counted as significant. Only occassionally will correlations of .17 (.05 level) or .14 (.10 level) be shown or discussed and then only if they appear specially relevant to help clarify the concept.

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* D = sibling difference score
ND = sibling nondifference score

Correlates of the Indicators

1. IQ (D b = .22)
IQ had no correlates at the .01 level which indicates that the effect is unique and not related to other factors measured. The fact that it was the first variable selected shows that the effect of intelligence is the most important factor in determining differences in grade point average between the two siblings. The positive beta means that the child who achieved better was very likely to be the one who had the higher IQ, which is to be expected.

2. Age (D b = .19)
Age difference between the two children was the second most predictive variable and there were no significant correlates. The older child was more often the higher achiever.

3. Father living (ND b = .16)
Four variables correlated with the indicator, Father Living. They are shown in the table below.

Table 7

Statistically Significant Correlations between the Indicator "Father Living" and Other Demographic Variables for the Rural Area.

Type	#	Variable	r
ND	4	Father present in the home	.56
ND	467	Father presently employed	.50
ND	65	Parents separated or divorced	.32
ND	464	Number of rooms per person	-.29

From the means which indicate the composition of the sample, it is shown that 78% of the fathers of the sample were living and 22% dead, but that only 53% were in the home and about 27% were separated or divorced. The correlations shown above reflect these facts about the sample. If the father was living, he was apt to be present in the home but also living fathers were apt to be separated or divorced. Fathers who were living were likely to be employed. When fathers were living and present in the home there were fewer rooms per person in their homes, thus reflecting not only more children (r = .19 with number of children) but also the additional person in the family.

The fact that the beta weight was positive, shows that there were apt to be more differences between the children in their academic achievement when the father was living, thus indicating a father effect on the children. Whether this effect is positive in helping one child to succeed or is negative because larger numbers of children contribute to one child doing less well than expected is not shown by this item.

4. Mother worked most of the time during R's education (D, b = -14)

This item had no correlations which reached significance level and therefore must be thought of as a separate factor. The effect was negative, as indicated by the negative beta weight. Since both variables were difference scores, this means that the mother was less likely to have been working during the childhood of the child who was achieving better. As indicated by this item, mother's employment was associated with lower achievement.

It has already been shown that the achieving child in this rural area was more likely to be the older one and here we see that he was also more likely to have had his mother at home during his school years. There was a low correlation with IQ for this item (r = .15) indicating a tendency for the brighter child to be the one who had a mother at home more of his preschool and school years.

5. Attended nursery school (D, b = .14)

No items showed a correlation of .22 or better with this variable, but three showed a correlation of .20 or .21. Differences in attendance at nursery school were related to number of children (r = .21), number of persons living in the home (r = .21) and also related to years of mother's education (r = .20). In the rural area here studied, West Virginia, very few children had a chance to go to nursery school. In those families where one child had a chance, the families were likely to be large and to have mothers who were better educated and were willing to take advantage of an opportunity to send a child if that chance became available. The child who had the chance for this schooling was more apt to be the more achieving child in the sibling pair.

6. Number of children living at home (ND, b = -.21)
and 7. Number of rooms per person. (ND, b = -.19)

These two variables had a large number of correlations in common and had a high correlation with each other so are presented together.

Table 8

Statistically Significant Correlations Between the Indicators "Number of Children" and "Number of Rooms per Person" and Other Demographic Variables for the Rural Area.

Variables	r # Children	r Rms/Pers.
Number of children	1.00	-.50
Number of people in home	.69	-.48
Number of boys	.56	-.23
Number of girls	.51	-.35
Rooms per person	-.50	1.00
Share a room with many	.38	-.46
Father living	.09	-.29
Socio-Economic Index (SEI)	-.05	.22

The number of children correlated positively with the expected variables indicating a large family, while the rooms per person correlated negatively with the same variables. If there were more people, there were fewer rooms per person.

These two variables almost mirrored each other, and yet they appeared on the regression as two separate, but significant indicators. It may be that a large family had a unique effect over and above the effect of a large family on crowding in the home. Perhaps the large family results in less individual attention to the special abilities of a child which might result in better achievement in other circumstances, and physical crowding still further contributes to homogenizing the family effect on children.

Father living was not related to having many children, but was related to having fewer rooms per person, as was noted in the previous discussion of the correlates of father living.

The fact that SEI was not significantly related to number of children, but was positively related to number of rooms per person may help differentiate the effects of these two variables. Having many children in the rural area was not related to social class and occupation, but being able to house them adequately was related. The higher the social class the larger the number of rooms per person.

8. Socio-Economic Index (ND, b = .15)

Duncan's SEI index is determined by the occupation of the head of household. In the present study, half of the families were female-head-of-household, by design. Among these female headed families half were not working and therefore had no occupation to use to determine the SEI score. For these women the mean score for working women

6.

with equivalent education was arbitrarily assigned. Among the husband-present families, about half had the wife also working. Although, according to Duncan's index, no weight should be given for the woman's occupation, for the purposes of this study if the woman's occupation had a higher SEI score than her husband's, the SEI score for the family was set at a midpoint between the two.

If both husband and wife were in occupations above the mean for their educational group, the SEI score was raised by 5% to give weight for the additional income provided by a high occupation wife.

No extra weight was given for the employment of the lower SEI wife since among these people the fact that the wife has to work indicates to the world, in the eyes of many husbands, that the family really needed the money of the additional worker and thus detracts from the prestige of the family. The arbitrary 5% was added because it was felt there were status differences which accrued to the family with two professionals, and yet the amount added should not bring the family to a higher social class. The 5% additional was thought to accomplish the one without the other.

These rules for setting the SEI were not strictly in accordance with Duncan's procedures, but Duncan's, as well as all other schemes for assigning scores for social class are lacking in methods of dealing with the nonemployed woman head-of-household, and do not take any notice of the additional prestige and income which can accrue to a family with a wife working at a higher than expected level of occupational prestige.

Table 9

Statistically Significant Correlations Between Demographic Variables and the Indicator, "SEI", For the Rural Area

Type	#	Variable	r
ND	4	Father present	.88
ND	109	Mothers years of education	.53
ND	147	Size of town Larger town	.39
ND	436	Total educational things in the house	.34
ND	468	Mother presently employed	.29
ND	471	Have a toilet in the home	.26
ND	10	Number of dropouts in the family	-.23
ND	464	Rooms per person	-.22

Social class, as indexed by the Duncan Socio-Economic Index (SEI) was the eighth indicator in this regression to predict differences in academic achievement in the rural area. It correlated significantly with a number of other variables which are shown in the table.

Correlation of SEI with father presence, mother's years of education, and mother's employment were all expected since these factors had been used in determining the SEI level for the family as described.

In the rural area, SEI, as determined for this study, was associated with the size of town - the larger the town the higher the SEI. This relationship documents the drift to larger centers of those with more education and skills, particularly women who only in a larger place would be able to find higher level employment.

SEI was also related to educational advantages in the home, such as educational things, and negatively related to the number of dropout children in the family, both measures of educational press in the home.

SEI was related to rooms per person with the higher the SEI, the more rooms there were. In the rural area, where there was some variability, SEI was also indexed by having an inside toilet. Since practically all homes had inside toilets in the other areas, the item was dropped in those regressions.

SEI, as a measure of social class, was apparemtly a more inclusive indicator than any of the correlates which also might be expected to indicate social class.

SEI was positively related to grade point average differences. Apparently the higher the social class, the more likely there were to be differences between the two children in the same family--less homogenizing and greater likelihood for a child to take advantage of opportunities.

9. Number of dropouts in the family (ND, b = .10)

This variable was included in the regression, although it met only two of the three criteria for inclusion, because it was the next step and because of its intrinsic relationship to the major focus of the study. In the rural areas, the problem of dropouts is a significant problem and obviously relates to nonsatisfaction with school and nonachievement.

Number of dropouts was related to a number of other variables already included in the regression, but had a small addition to the variance.

Table 10

Statistically Significant Correlations Between Demographic Variables and the Indicator, "Number of Dropouts" for the Rural Area.

Type	#	Variable	r
ND	109	Mother's education	-.36
ND	462	Number of people in the family	.32
ND	7	Number of boys	.28
ND	11	Sex by achievement (higher more female)	.27
ND	8	Number of girls	.26
ND	436	Total educational things in home	-.25
ND	469	SEI	-.23

The correlations show that the number of dropouts was positively related to there being many people in the family and high numbers of both boys and girls. The sex by achievement item will be discussed more fully in the next area where it was one of the indicators.

Number of dropouts was negatively correlated with social class and with the educational press of the home, as shown by the number of educational things in the home, and also negatively related to mother's education.

Overall, conditions of large families and low educational press in the home lead to dropouts, but the positive beta weight shows that having a high number of dropouts in a family is related to greater differences between the two siblings. With a pattern of dropouts in a family, a child who is not succeeding may stop trying and thus increase the difference between himself and his sibling who is achieving at some higher level. Dropouts provide a model of nonparticipation and lack of concern about underachievement.

Summary of the Relationship Between the Indicators and Other Demographic Variables

In the rural area the mean SEI score of the sample was 26.91, with a S.D. of 19.70. In this area, more than in any other, the SEI score of the family reflected the occupation of the mother when both mother and father were working since, in this area, mothers were apt to be working at jobs at higher ratings than fathers. Without the additional points being assigned the families because of women's working, the mean SEI for the area would have been lower. By the national ratings, which show a mean of about 30, this area must be thought of as below average.

In the rural area, from the research, a picture emerges of a low income, depressed area where differences generally are found between siblings as families move up in the social ladder. There were many children in the families and many people in the homes resulting in crowding. With the large families there was less opportunity for individual attention to any one child, and only when one child had special breaks was it possible for him to achieve better than another.

Special breaks were such things as attendance at nursery school, a mother who remained at home more during his early education or higher social class. It was interesting to find that the "significant other" chosen by the achieving lower class child had more education than that chosen by the sibling.

Aside from special breaks, a higher IQ was related to achieving; and a better achieving child was apt to be an older child in junior high school who remained to finish rather than dropping out. A history of dropouts in the family was related to wider differences in the two children, probably indicating that only children who were doing well, and were intelligent, were remaining in school; while their less well achieving siblings, following family patterns, dropped out, or lost interest before dropping out.

RURBAN AREA: THE RELATIONSHIP OF INDICATORS TO THE DEPENDENT VARIABLE.

Selection of the Indicators

Eight variables met the criteria in the Rurban Area. These items are shown in the table in the order in which they were entered into the stepwise regression.

Table 11

Beta Weights and F Values for Demographic Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area.

Type	#	Variable	Beta	F
D	13	Attended nursery school	-.33	18.64
D	170	IQ	.30	16.13
ND	436	Educational things in the home	-.19	5.76
ND	11	Sex Achievement	.23	7.45
ND	139	Race: Black	-.13	2.81
ND	143	No religion	-.11	2.04
ND	8	Number of girls	-.16	3.15
ND	17	Share a room	.12	2.02

The variance accounted for by the 8 variables was .25 with a multiple correlation of .50. The F value for all 8 variables (d.f. = 8/135) was 5.64 p = .001.

Correlates of the Indicators with Other Demographic Variables.

1. Attendance at nursery school. (D, b = -.33) Differential nursery school attendance was the first variable selected in the stepwise procedure. The negative beta indicated that in families where only one child attended nursery school, the child who attended did less well in school than his sibling. This was the reverse direction from the rural area and was contrary to expectation if it is thought that additional educational experience leads to better school performance.

Since the finding was unexpected, it is of interest to look at correlations of this variable with variables from the Self and Family areas as well as at lower correlations from the Demography section. Pertinent correlations are shown below:

Table 12

Correlations Between the Indicator, "Nursery School Attendance" and Other Selected Variables for the Rurban Area.

Type	#	Variable	r
D	72	Time spent reading for pleasure	-.19
D	88	Conflict with mother	.18
ND	139	Race: Black	-.18
D	439	Mother has higher aspiration for R's level of education	-.15
D	5	Age differences	-.15

The correlation with race indicates that the differential attendance at nursery school was more likely to be a phenomenon of white families. The child who did not go to nursery school was likely to have more conflict with his mother, to spend less time reading for pleasure than his sibling, and to be the younger child.

This finding illustrates the advantage of using the concept of the indicator rather then the variable itself. In the latter case, the conclusion would be that having a child attend nursery school meant that the child would do less well in school. Considering the item as an indicator of other variables, the conclusion would be that children who were more likely to be problems would go to a nursery school but would not do as well in school as the sibling who was less of a problem and did not go to nursery school.

2. IQ (D, b = .30)

Measured intelligence was again shown to be positively related to differential achievement in the two children in the family. The brighter child achieved better in school.

The only correlation with this item among the demographic variables was the age differences between the children which had an r of -.23. The brighter child tended to be younger.

Age apparently was a concommitant variable to IQ in the rurban area while in the rural area it was a separate item.

3. Educational things in the home (ND, b = -.19)

Educational things in the home was a sum score for such things as an encyclopedia, a place where books are kept, a local newspaper and a news magazine.

Table 13

Significant Correlations Between the Indicator, "Educational Things in the Home" and other Demographic Variables for the Rurban Area.

Type	#	Variable	r
ND	469	Socio-Economic Index	.32
ND	109	Mother's education	.28

Number of educational things in the home can be considered an indicator of social class since it correlates highly with both SEI, the direct measure being used in this study, and with mother's education which is another measure highly correlated with SEI. Since educational things was the indicator selected in the regression, although highly related to SEI, it apparently indicates that educational press in the home or lack thereof, is more important to the child's achievement than just SEI as determined by the father's occupation.

The negative beta indicates that in homes where there were fewer educational things there was more difference in academic achievement for the two children.

4. Sex by Achievement (higher score more likely if children were female) (ND, b = .23)

This item was arranged to determine whether the achieving child in the sibling pair was a girl or a boy. A 0 code meant that the higher achiever in the pair was a boy with a less achieving male sib, 1 code indicated a boy achiever with a less achieving girl sib, 2 code indicated a girl achiever with a boy less-achieving sib, and 3 showed a girl pair. The higher the code for the pair, the more the achiever was apt to be female. Equal numbers of children in each of the four pair types would have a mean of 1.50 so that the mean found in the rurban area, 1.57, did not indicate that the sample differed from random expectation.

There were a number of correlations with this variable and these are shown in the table below.

Table 14

Significant Correlations of the Indicator "Sex by Achievement" with other Demographic Variables for the Rurban Area.

Type	#	Variable	r
ND	464	Rooms per person	-.49
ND	7	Number of female children in the family	.45
ND	8	Number of people in the home	.45
ND	9	Number of male children in the family	-.38
ND	469	Socio-Economic Index	-.25

The significant correlations are with items which indicate lower social class, large families with crowded conditions but more girls than boys. In these types of families there apparently were more differences between the academic achievement of the children than among other families. It might be that this is an artifact of sample selection of a particular group of families meeting this description - possible black families since correlation of being black with this item was .20.

The more the pair had a female achiever, the greater the differences between the two children in their achievment as shown by the positive beta. The significant differences were probably accounted for by the pairs where the achieving child was a girl with a considerably less achieving boy.

5. Race: Black (ND, b = -.13)

The mean for this item for the rurban area was .06, indicating that 6% of the families of this sample were black. There were a number of variables which correlated significantly with being black.

Among the black families of the sample, there was a strong possibility that the fathers were not present, were not employed, and that the parents were separated. These conditions were all associated with fewer differences between the children, greater homogenization.

When the mothers worked during the time the children were in school, apparently their working was advantageous because the child who reported the mother working more during her education was the one who was achieving best.

Table 15

Significant Correlations for the Indicator "Race: Black" with Other Demographic Variables for the Rurban Area.

Type	#	Variable	r
D	415	Mother worked most of the time during R's education	.29
ND	4	Father presence	-.25
ND	467	Father employed	-.24
ND	65	Parents separated	.23

6. No religion (ND, b = -.11)
A response of "no religion" was given by 6% of the sample. There were no significant correlations with this item so the effect was unique. Among the small sample who were not Protestant, Catholic or Jewish, there was a tendency for the children to show few differences in academic achievement.

7. Number of female children (ND, b = -.16)
The number of female children correlated significantly with a number of variables which are shown in the table.

Table 16

Significant Correlations of the Indicator Variable, "Number of Female Children" with Other Demographic Variables for the Rurban Area.

Type	#	Variable	r
ND	62	Number of people living in the house	.69
ND	9	Number of children at home	.59
ND	11	Sex by achievement	.45
ND	17	Share a room with others	.42
ND	464	Number of rooms per person	-.38
ND	10	Number of dropouts	.35

The number of female children is shown here to be an excellent indicator for a whole array of variables which all measure large families with consequent crowding in the home. Number of females was also associated with the number of dropouts and differential achievement by sex. It might be that some girls dropped out, or that the boys dropped out leaving more girls the achievers.

A correlation with SEI significant at the .10 level helps to show that the syndrome of large families tends to be related to lower occupation.

The correlation with black was reported in the discussion of the previous variable and indicates again that it is likely that a good deal of the effect being measured by number of female children was also a characteristic of the black families.

The larger the family as indicated by the number of female children, the less likely that there would be differences in the achievement of the 2 siblings. It is in smaller families where differentiation can more readily occur.

8. Share the bedroom (ND, b = .12)

This variable was coded from 0 = share with no one, to 3 = share with 3 or more. The higher the score, the more sharing. A number of variables correlated significantly as shown in the table.

Table 17

Significant Correlations of the Indicator "Share a Room" with other Demographic Variables for the Rurban Area.

Type	#	Variable	r
ND	464	Rooms per person	-.49
ND	9	Number of children	.46
ND	62	Number of people in the home	.45
ND	8	Number of girls	.42
ND	10	Number of dropouts	.25
ND	469	Socio-Economic Index	-.25

These correlations have shown the expected variables correlated with crowded conditions.

Sharing a room was a good indicator for the expected variables showing large families, large number of dropouts, and low occupational level as indexed by SEI.

When families were small, children did not have to share a bedroom and the social class was higher, it was more likely that the children would differ in their school work and the child could take better advantage of opportunities available.

Summary of Indicators for the Rurban Area.

From the correlations of the indicators, and the indicators themselves, it appears that differential achievement in siblings is best accounted for by IQ, and by a combination of educational press in the home (educational things) and social class, as shown by the correlations with larger families and crowding. Among blacks, the absence of the father was a negative factor leading to fewer differences between children--more homogenization, while large numbers of female girls appeared to be a positive factor leading to differences in achievement - but that difference might be at the expense of one child doing less well.

In the rurban area the mean SEI score was 45.86 with a S.D. of 21.08, thus indicating a socio-economic level considerably higher than the national mean, which is about 30. In this higher level area, there is considerable educational press in the community and it would be expected that in general, children would achieve well in school. Differences in achievement were connected with conditions which led to one child doing less well than expectation, rather than doing better than would be expected.

In this area there were a few families which were of much lower social class as shown by the high standard deviation. Among these families, differences would be positive, in that they would mean one child was succeeding.

In this area, IQ was related to achievement, and differences in IQ accounted for more difference between the two children in achievement than any other factor except the nursery school item, which was applicable to only a few families.

In the rurban area several factors emerged which were associated with less achievement and can be thought of as being negative factors in a predominantly achieving atmosphere. These were: attendance at nursery school when the child who attended was a problem child, lack of educational things in the home, being black, having no religion, having a large family and living in a crowded home.

In this educational milieu, there were indications that girls got higher grades than boys and were more likely to be the achievers.

A positive correlation between social class and differences between the years of education of their "significant other" who understood them best, indicated that among the higher SEI families the achieving child's significant other had higher education but that among the lower SEI families the underachieving child had a higher educated significant other. Both of these directions are possible in this area where people tend to be achievers. Those who were not doing well but were from higher level homes, may indeed select a lower level significant other. For those children who were not doing well there may very well be counselors, tutors, etc. who were helping the underachiever and therefore may be a significant-other with high education.

URBAN AREA: THE RELATIONSHIP OF INDICATORS TO THE DEPENDENT VARIABLE

Selection of the Indicators

The eight variables which met the criteria in the urban area are shown in the table below in the order in which they entered the regression equation.

Table 18

Beta Weights and F Values for Demographic Variables Related to Differences in Academic Achievement of Siblings in the Urban Area.

Type	#	Variable	Beta	F
D	170	IQ	.34	10.19
ND	11	Sex by achievement (female higher)	.27	12.58
ND	144	Jewish or other religion	-.18	5.03
ND	66	Father living	-.18	4.99
ND	141	Catholic	-.22	5.50
ND	467	Father presently employed	.13	2.39
ND	109	Years of mother's education	.16	3.95
ND	139	Race: Black	-.16	3.00

The variance accounted for by the eight variables was .25 and the F value (d.f. 8/135) was 5.49, p = .001.

Correlates of the Indicators with other Demographic Variables

1. IQ (D, b = .34)

Differences in intelligence, as measured by IQ tests, was the first variable in the regression equation indicating that IQ was the single best predictor of differences in grade point average in the urban area.

Differences in age between the two children was the only demographic variable which correlated with IQ (r = -.30.) The negative relationship showed that the achieving child was more apt to be a younger child than an older one. This was the same finding as in the rurban area.

Once again, age was a concommitant variable to IQ.

2. Sex by Achievement ratio (D, b = .27)

In this urban sample there were 153 girls and 135 boys so it is likely that the mean of 1.61 reflects the fact of more girls. The variable correlated .43 with the number of girls and -.37 with the number of boys, not much different in magnitude from the other areas. The high beta weight indicated that the achieving child is likely to be doing much better than the sibling, as there are more girls. Boys in general do less well in this area and many drop out, so therefore when there are girl-boy pairs the girls do much better. It is possible that there are girls in the girl-girl pairs who also are achieving way above their sib which helps to increase the amount of association with the dependent variable.

3. Religion: Jewish or other. (ND, b = -.18)

In order to be able to determine the relationship of certain noncontinuous variables to others, a number of yes-no items were created. Religion was one of these. Entered into the regression were Catholic, Jewish, other, and no religion. Protestant, the majority religion, was not directly included, since it was not mathmatically possible or necessary to include all combinations directly.

For purposes of this final analysis, the 2 Jewish families, 11 Others, and 7 no answer families were grouped for a residual group. This is the group which turned out to be the third step on this regression, adding significantly to the amount of variance accounted for.

The only significant correlation with this item, other than not being Catholic, was a correlation of .28 with the item, Race: Other, which indicated a race other than black or white. This was another of the yes-no variables and the sample included 6 American Indian families, 2 Oriental and 2 "Other".

The positive correlation for this item shows that among those who indicated their religion as "Other" , many were likely to be of other than black or white race.

The negative beta weight for this item shows that among those who indicated their religion as "Jewish or other", there were likely to be few differences in the academic achievement of the siblings, both were achieving or not achieving.

4. Father living (ND, b = -.18)

Several variables were correlated significantly with this item, as shown in the table.

Table 19

Significant Correlations between the Indicator, "Father Living" with other Demographic Variables in the Urban Area.

Type	#	Variable	r
ND	4	Father present	.29
ND	467	Father presently employed	.28
ND	65	Parents separated or divorced	.25
ND	464	Rooms per person	-.24

Father living is a good indicator for a group of variables and it is interesting to note that the same four items and no others, correlated with "father living" for the rural sample, but with higher levels for the rural sample.

From the means for these items, which indicate the percentages with yes-no variables, it was shown that 90% of the fathers in the urban area were living as against 78% in the rural sample. More fathers in the rural area were dead which accounts for more of the fatherless families there, while in the urban area 38% of the fathers were separated or divorced as opposed to 27% in the rural area, showing that separation was a larger factor in accounting for fatherless families in the urban area.

Fathers who were living were likely to be present and to be employed, but not as likely as in the rural area where the correlations were higher. Fathers who were living and at home contributed to the crowding in the home.

Father living, and by extension, father presence, was associated with fewer differences in achievement between the two children, as shown by the negative beta.

5. Catholic (ND, b = -.22)

31 % of the sample was Catholic. The yes-no variable for being Catholic showed that, in addition to being not other religions, Catholics were not likely to be black, r = -.54.

The next highest correlations with being Catholic did not reach the levels for significance we are using, but are presented here for their interest value. Being Catholic was negatively related to the hours a week mother worked (-.18), and positively related to differential working while the two children were in school (.18). From these correlations we can say there was a trend for Catholic mothers to work less than other women of the sample and that among the Catholics, the achieving child was more likely to have had the mother at home during his school career.

The positive beta weight for Catholics indicates that among the Catholics there was more differentiation between the siblings than among the other religions, mainly the 43% Protestants, since they are the major religious group not brought into the regression up to this step.

6. Father presently employed (ND, b = .13)

Some of the same variables which correlated with "father living" correlated with "father employed", as shown.

Table 20

Significant Correlations Between the Indicator, "Father Employed" and Other Demographic Variables for the Urban Area.

Type	#	Variable	r
ND	4	Father presence	.96
ND	65	Parents separated or divorced	-.69
ND	66	Father living	.28
ND	464	Rooms per person	-.22
ND	462	Number of people living in the home	.21

The correlations of father employed with father presence for the urban area is .96 showing that when fathers are present they are practically all employed. In the rural area this correlation was .89 which, although high, was not quite as high. In the urban area few men who were not employed stayed with the family, while a few more in the rural area apparently did stay.

If the father was employed, in addition to being present and living and causing crowding in the home, he was not likely to be Jewish (-.17) or Other religion (-.17), not likely to be black, (-.17), but he tended to be higher in his occupation, as reflected by a correlation with SEI of .16.

Father living, as reported in step 4, had a negative effect on differentiating the achievement of the two children, but father employed, as shown here in step 6, had a positive effect.

7. Years of mother's education (ND, b = .16)
This variable correlated with a number of other variables, as shown in the table.

Table 21

Significant Correlations Between the Indicator, "Mother's Education" and other Demographic Variables for the Urban Area.

Type	#	Variable	r
ND	469	Socio-Economic Index (ND)	.28
ND	436	Number of educational things in home	.28
ND	139	Race: Black	-.28
D	135	Education of significant other (D)	.26
ND	10	Number of dropouts in family	-.24
ND	143	No religion	-.24

These correlations show that mother's education was a positive indicator for social class and for what is here being called educational press in the home. Educational press was shown by educational things in the home, the education of significant others and a smaller number of dropouts in the family.

Mother's educational level was negatively related to being black and admitting to "No religion".

The child who was the achiever was more apt to select an educated person as a significant person if the mother had more education, and the overall beta weight with this variable shows that there was more difference in the academic achievement of the children as the mother had more education.

8. Race: Black (ND, b = -.16)
Being black had a number of significant correlations as shown in the table.

Table 22

Significant Correlations Between the Indicator, "Race: Black" and other Demographic Variables for the Urban Area.

Type	#	Variable	r
ND	141	Catholic	-.55
ND	143	No religion	.42
ND	109	Mother's education	-.28
ND	17	Share a room	-.23
ND	469	Socio-Economic Index	-.22

Forty six percent of the urban sample was black. The correlations show that these black families were not apt to be Catholic but were apt to be "no religion". Black mothers were likely to have low education, the families lived in more crowded conditions and lower occupational-social class rating than the rest of the sample. Fathers were less likely to be employed. (r = .17)

Among the black families there was less differentiation between siblings, so the effect of race was negative for one child being a higher achiever.

Summary of the Relationship between the Indicators and Other Demographic Factors

In the urban area, the mean SEI was 32.00, with a S.D. of 17.46. This indicates that this sample just about represented the national mean of 30. Although there was a large sample of blacks in this area, 45%, the negative effect of the types of jobs usually available to minority members may be somewhat offset by the fact that better jobs are available in larger cities.

In this area, IQ, as in all of the areas, was a potent indicator.

This urban area is very cosmopolitan and includes various ethnic and religious groups, but it was found that membership in these groups meant lower social class and was a negative influence which led to fewer differences.

Father living, as opposed to father dead, was associated with fewer differences in children, but father presence and father employed were associated with more differences. Many fathers in this area were separated so that those who were living, but not with the family, made for more homogenization of children, but having a father present and employed were both associated with higher social class and helped to differentiate the children.

A more highly educated mother was associated with differences in the children, showing that if the mother was educated she would tend to differentiate the children and be more apt to help a brighter child succeed.

In this area there were more girls than boys, especially among the father-absent families. There was a trend for the black fathers to be nonemployed, which was highly associated with his being absent from the home but still living. Among families where the father was not present, it might be hypothesized that the boys left home early leaving more girls at home to make an excess of girl-girl pairs. Among these pairs there were more differences between the children than among pairs with boys as one or both members.

COMPARISON OF THE THREE GEOGRAPHICAL AREAS

Correlations of the demographic indicators and an attempt to determine the underlying factors operating across the three cultures, has led to a new grouping of the variables which seem to represent underlying dynamics better than a priori grouping previously presented.

The new headings were:

+1. IQ
+2. Social class
+3. Positive educational press
-4. Negative educational environment
-5. Negative effect of large families
-6. Minority race or religion

It is noted that three of these are listed as positive and yet social class was actually directional in producing differences, depending upon the level of the community being discussed. Three of the headings are negative and all three of these were negatively correlated to social class.

Although it would be possible to subsume all of these headings under social class since they are so highly related, it adds interest and also broadens the concepts to discuss them separately.

1. IQ

IQ showed highly positive relationships to academic achievement for all three areas. The higher IQ child was very apt to be the achieving child.

IQ also showed a relationship with age in all three areas and in the rural area, where the correlation was low but positive, age emerged with a significant beta weight as a separate factor, (b = .19), showing that in this area the older child was most often the achieving child.

In the other two areas, age was not a separate factor but the correlations with IQ were high and negative (Rurban = -.23 Urban = -.29) The differences in sign of the correlations is interesting.

The underlying factor is the relationship of age to IQ. The study was confined to a sample of children who were all in the three junior high school grades. Among junior high students it would be expected that more of the older children would be those who were old for their grade, and thus had been held back from promotion. As children reached 16, the school leaving age, and were still in junior high school, they could be retarded from one to two years.

The school leaving age in all three geographical areas is 16, but in New York state, where the rurban and urban samples were collected, the rules were more strictly enforced, while in West Virginia, where the rural sample was obtained, the researchers were informed that less attention was paid to children who did not attend and there was a serious dropout problem.

These facts about school leaving may explain the differences in sign found for age differences. In the rural area the brighter a child was, the more advanced he would be in school-perhaps moving into junior high early, while his less bright sibling would have dropped out and therefore not be selected as a school attender. In the rurban and urban areas, on the other hand, the older a child was,while still attending junior high school,the less bright he would be.

It appears that the direction of the age differences is explainable by differential concern with dropouts in the three areas. The high correlation with the dependent variable shows that the age of the child, related to the school grade in which he is, is highly predictive of,and related to the differential achievement of the two children in the families. The child who is older but in a lower grade than he should be was the one not achieving well, while a child who was younger than he should be for his grade was doing well. Age in grade is to some extent a function of IQ.

2. Social class

Social class was clearly related to mother's education. For a quarter of the sample population who were working but had no husband present, the SEI measure was based on mother's education alone, while for another quarter without husbands but not working, the means SEI of women of their educational level was assigned. The womans employment could also raise the class level of the family even if she had a husband who was working.

Women with husbands present, only in the rural sample was woman's employment significantly related to SEI since women in this area, more than any other, worked at occupations with higher SEI ratings than those of their husbands. In this area many men worked at low level occupations, such as coal miner, while women worked as secretaries and school teachers with much higher SEI ratings. The SEI score for the family in such cases was the midpoint between the couple's scores, thus giving higher weight to the woman in this area.

Father's presence tended to significance only in the rurban and urban areas,and since father presence was highly related to father's being employed, these correlations probably reflect the same facts as father's employment.

Rooms per person was related to social class in the rural and rurban areas but not in the urban areas, possibly representing the fact that in the big cities there were fewer housing units for large families. Although sharing rooms showed a negative tendency for all areas, only in the rurban area did it reach the .01 level.

Number of dropouts was negatively correlated with SEI in the rural and rurban areas but not in the urban, although the direction was the same for the low correlation.

"Significant other's education" was negatively related to SEI for the rural area and positive for the rurban. Two possible explanations can be offered for the findings in each area.

For the rural area, among low SEI families, the child who was achieving had a higher educated significant-other, while the child who was not achieving as well had a lower-educated other. Poorly educated mothers and fathers become models for their children who are not doing well, while the achievers had found someone of higher education to help them.

In the rurban area, the higher SEI achievers selected higher educated models while the underachievers did not. The lower SEI underachieving children chose a higher educated other. Also, in this area children have guidance counselors and university tutors available.

3. Positive educational press in the home

This item was not directly measured, but seemed to be indexed by the sum of the educational things in the home.

If a mother had more education, she put more educational things in her home so the children not only had a more educated mother to talk to and interact with, but also a more stimulating physical environment. This illustrates the interactive effect of education, social class and educational press in the home.

Mother's education was highly related to SEI, since it was a major component of the measure, but it was also highly related to the size of town. Mother was apt to have more education if she lived in a larger town, but not in the urban area. A woman with a higher education in a rural or rurban area was more apt to move or remain in a larger town, while a better educated woman in an urban area was more likely to move to the suburbs.

Positive push toward education was negatively related to being black and to belonging to no organized religion. These two variables were highly correlated in the urban area where there were a large number of blacks ($r = .42$), but not related in the other two areas where the smaller number of blacks and non-blacks were probably not similar to each other on these variables.

4. Negative educational environments

This factor had no direct measure but was indexed by the Number of Dropouts and differential mother's working while children were preschool or school age.

A low SEI home appeared to be most related to negative educational environment. A home where there were many people in the home with consequent need to share a bedroom might interfere with ability to study.

A negative environment also included many children in the family. When there are many children it might be more difficult for any one child to get attention,which then leads to underachievement. On the other hand, the financial needs of the family might be so great that if a child can dropout and get a job, that may be an advantage to the family, if not to the child.

Negative educational environment was ameliorated by a father who was living, by a mother who had more education and in the rural and rurban area, by a mother who went to work. Perhaps in some homes the additional income a mother brought in might make it possible for the children to remain in school longer. Dropouts were negatively related to educational things in the home, which is the positive indicator for educational press, indicating that they were, to some extent, two sides of the same factor.

If the mother did not work during the early childhood of the child he was more apt to be the achiever. In the urban area with this item all seemed to focus on Catholic women living in the center of the urban area. These were the ones who worked differentially during the early childhood and school years of their two children. The differences between the two children were enhanced by this working, in favor of the achiever.

In the rurban area black women were the ones who worked more while their achieving child was young.

5. Negative effects of large families and sex pairings

This factor appeared to be made up of two separate ideas but from the correlations they appeared to be related.

Number of children had a beta weight of -.21 in the rural area pointing up the negative effect on academic achievement of having a large family. When families were large, there was little differentiation of the children,since they were homogenized, and there were more dropouts,showing a generally low level of achievement.

The sex by achievement, or sex pairing item showed significant beta weights for both the rurban and urban areas, and in the rurban area there was a significant negative beta for number of girls in the family. These findings seem to show that in the rurban area, among girl-boy pairs of siblings, the girls were apt to be the achievers; but in certain large families where there were girl-girl pairs, there was apt to be small differences in the achievement of the two girls.

In the urban area, where there were many fewer boys in the study population, especially in the father absent families, it appeared that among the girl-boy and girl-girl pairs there were wider differences than among the pairs containing boys.

6. Minority race and religion

Minority group membership, whether race or religion, had negative associations with social class. Whether there was more than social class operating is a moot question, but since several of these yes-no variables had significant betas. it warrants special mention as a grouped factor,inhibiting differences in achievement between the two children.

In every case where these variables became significant,there were negative beta weights, indicating that the conditions of minority race and religion in all areas, served as homogenizing influences, rather than releasing influences which would allow children of different IQ to be different in grade point average.

Summary of Demographic Variables

This section had documented and discusssed the factors in the environment over which the child had no control, to find out what effect that background had on the differential achievement of two children in the same family. It was pointed out that in depressed surroundings, such as the rural area here studied and the large urban situation, especially for the large black population sampled here, differences should be thought of as positive, allowing a child to succeed where others in the same environment were not succeeding. In the rurban area, where the sample showed higher social class, differences were more apt to be negative in that they would be contrary to the general expectation. In this population, among those who were lower social class, the same positive outcome for differences would be expected.

Findings were that IQ was the single best predictor and that IQ was highly correlated with age of the child. Interesting differences were found for areas showing that in the rural area, where underachievers were able to drop out of school, the brighter a child was, the younger he was apt to be in the sample of children. In the rurban and urban areas the older a child was, and still be retained in junior high school, the lower his IQ was apt to be.

Social class and its ramifications was the second largest predictor. Low social class in all three areas, was related to more homogenization of the children, thus showing the difficulty a child would have in succeeding in a depressed environment.

Having a living father was positive in allowing rural children to differ from one another, but negative in the urban area where there were more living but separated fathers. Fathers employment was positive in the urban area allowing children to differ from one another.

In the urban area, mother's education was significant, where the general educational level was low, those mothers with a somewhat higher education were able to help a child with ability to succeed.

Mother's education was associated with educational things in the home and showed the interaction of education, social class, and positive educational press in the home in every area. Helping women get more education might be a very positive way to help children break out of poverty. Children with mothers with more education were less apt to drop out. There was some indication that in the rural and rurban areas mother's working was negative for the IQ of the child but was positive in the urban area.

Poor housing and the concommitant corwding were negative in every area and related to social class.

Large families were related to poor housing and social class, but there appeared to be a negative educational effect because of the lack of attention to the children in large families which was over and above the crowding because of many family members.

Minority group membership in religion or race, while a concommitant of social class, was so pronounced, - emerging in each regression - that it was given special attention. For minorities in any area, in addition to the lower income and job of the parents, there may in addition be discrimination against the children in school, which depresses their differential functioning.

THE FAMILY VARIABLES

This study included twenty-five family variables and related them to the dependent variable, differences in the academic achievement of siblings. These family variables were divided into four types of relationships - mother-child, father-child, both parents and the child, and relationships between the siblings. There were 7 mother-child, 5 father-child, 4 parent-child and 9 sibling relationships factors. The table briefly describes these factors. A more detailed description of them is found in the Appendex. A description of a variable is found the first time it is introduced.

Table 23

Family Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables were Selected in Rural, Rurban and Urban Area Samples.

#	Variable
Mother-child	
88	Mother-child conflict
107	Mother's expectation about child's school performance
382	Warm democratic mother
385	Authoritarian mother
388	Pressuring mother
418	Mother's working has positive effect on child
421	Mother's working has negative effect on child
Father-child	
114	Father's aspiration about child's future level of education
412	Father's power in the family in comparison to the mother
424	Warm democratic father
430	Pressuring father
Parent-child	
91	Definite rules by parents for child's behavior
403	Loyalty to and empathy with parents
406	Works for own spending money

409	Child has more power than parents
Sibling	
100	Interaction with sibling (mostly positive)
103	Sibling rivalry
105	R feels that mother favors sibling
219	Sibling has active personality as rated by R
223	Sibling is inner directed as rated by R
227	R has a more active personality than sib as rated by R
231	R is more inner directed than sibling as rated by R
442	Mother perceived as warmer to R than to sibling
446	Mother perceived as being more authoritarian-pressuring to R than to sibling

COMPARISON OF THE STEPWISE REGRESSION OUTCOMES FOR FAMILY VARIABLES IN THREE GEOGRAPHIC AREAS

All of the family variables were placed into a stepwise regression and those that met the criteria were kept for further analysis. The criteria were; an F value of 2.00 for the partial correlation with the dependent variable, holding constant all the other variables already entered, a gain of 1% or more in the accounted for variance when the factor was introduced into the regression equation and the multiple correlation being significant at least at the .01 level after the variable was introduced into the equation. There was an occasional exception to this rule, but in no case was more than one of the conditions not met, and when this occurred there was some special reason. The following table presents the step at which variables were entered into the equation for those that met the criteria for any of the three geographic areas. If there is consistency for these variables across the three geographic areas we may then combine the areas and consider them to be not different according to the relationship of the family factors and the dependent variable. If however, the variables are not consistently found in the three areas, the areas will need to be considered as different and the three cultures reported separately.

There was only one factor which was found in all three areas and this one, mother-child conflict, had a negative beta weight for the rural and rurban areas but a positive weight for the urban. Child power was significant in two areas and positive for both. Pressuring father was positive for the rural area and negative for the urban, while father's aspirations about the child's future level of education was negative in the rural area and positive in the rurban. Thirteen variables were significant only for one area and the remaining seven were not significant in any area.

Table 24

Significant Family Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables were Selected in Rural, Rurban, and Urban Area Samples.

#	Variable	Rural	Rurban	Urban
409	Child power	1	-	4
91	Definite rules set by parents	2	-	-
430	Pressuring father	3	-	5
88	Mother-child conflict	4	1	2
227	R has more active personality than sibling	5	-	-
223	Sibling is inner directed	6	-	-
114	Father has high aspirations for child's education	7	3	-
107	Mother has high expectations for child's schoolwork	8	-	-
406	Child works for spending money	9	-	-
385	Mother is authoritarian	-	2	-
412	Father power in the family	-	4	-
105	R feels mother favors sibling	-	-	1
442	Mother warmer to R than to sibling	-	-	3
100	Interaction with sibling	-	-	6
403	Loyalty to and empathy with parents	-	5	-
446	Mother more authoritarian-pressuring to R than to sib	-	-	7
388	Pressuring mother	-	-	8
	Total	9	5	8

From these data we may conclude that the three areas were different from each other in their patterns of regression coefficients with the dependent variable. The three areas must be then considered as different cultures for relationship between the family variables studied and differential school achievement of the two siblings.

On the other hand it may be that there are some similarities between their underlying structures. They may be indicators of similar patterns of relationships which can be deduced from exploring the relationships between each of the selected variables and other family variables. This exploration will be done area by area.

Since the variables were very different for each of the geographic areas, indicators will be discussed separately for each area and then compared with each other. The first area selected will be the rural one.

RURAL AREA:
THE RELATIONSHIP BETWEEN THE INDICATORS AND THE DEPENDENT VARIABLE

Selection of the Indicators

The twenty-four family variables were placed in a step-wise regression analysis and nine of them were selected for further analysis. On the basis of the 3 criteria mentioned; an F value o 2.00 or higher for the significance of the partial correlation, the increment in accounted for variance by the variable of .01 or higher and a multiple correlation at the time for inclusion of the variable significant at the .001 level or beyond.

The beta value presents the normalized weighting for the variable as well as the direction of the relationship, and the F value indicates the significance of the regression holding constant the prior Betas introduced.

Table 25

Beta Weights and F Value for Family Variables Related to Differences in Academic Achievement of Siblings in the Rural Area.

#	Variable	Beta	F
W. Virginia			
409	Child power	+.27	10.57
91	Definite rules set by parents	-.15	2.96
430	Pressuring father	+.23	6.48
88	Conflict with mother	-.18	4.35
227	R's self active orien. - siblings self active orien.	+.13	2.30
223	Inner-directedness of sibling as perceived by R	-.13	2.49
114	Father's aspiration for R's future education	-.20	4.00
107	Mother's aspiration for R in terms of school	+.19	3.69
406	Financial independence of parents	-.10	1.56

The multiple correlation for the 24 variables was .50. For the above nine items the multiple correlation was .46. In other words, the nine items accounted for 92% of the variance found for the 24. The F value for the multiple R at step 9 was 3.67 which was significant beyond the .001 level for 9/125 degrees of freedom, while the F for all the items was 1.45 which was not significant at the .05 level. The larger number of items increased the amount of error more than they contributed to accounting for the variance.

Correlates Between the Indicators and Other Family Factors

1. Child power (b = .27)

The variable was indexed by three items having to do with the degree of decision making power the child had in relation to his mother and father about his buying clothes, and a general one for the relationship to each parent.

Child power had no correlations significant at the .01 level with any of the family factors. There were three factors however which were significant at the .10 level which provide some further meaning to this item. They were: R did not feel that the mother favored the sibling over the self, did not feel that the father was a pressuring person and he had a high degree of loyalty to the parents. In other words, children who felt that they had more to say in the family than their sibling, felt in general they were favored by the parents and reciprocated this feeling by having positive affect toward them. The child power indicator seemed to be representing child power with positive affect toward parents.

Children having these characteristics were more likely to be achieving better in school than was the sibling. (b = .27)

2. Definite rules by parents for child's behavior (b = -.15)

This factor was indexed by 5 items all of which measured different kinds of rules and the extent to which these were imposed on the child. The areas were; time to be in at night, watching tv, time spent on homework, time spent on the telephone and rules about jobs to be done around the house.

There were four other family factors which were significantly correlated with the indicator, rules set by parents.

Table 26

Significant Correlations of the Indicator, "Rules Set by Parents" with Other Family Factors

#	Variable	r
88	Conflict with mother	.31
388	Pressuring mother	.24
382	Warm democratic mother	.22
430	Pressuring father	.22

Three of the items were quite straight forward - maternal-child conflict, and having pressuring parents. Rules refer to pressure and if there are no rules there will be no conflict. It is very interesting that the child who perceived the parents as setting rules more than did the sibling, also tended to perceive the mother as being warm and democratic. In other words, these rules were not perceived as being antagonistic to the child's interests but were emanating from a warm supportive person. The indicator is renamed, having structuring supportive parents.

Children who perceived their parents as structuring supportive tended to perform less well in school than did the sibling, who perceived his parents as providing more freedom even though the parent may have been perceived as being less supportive.

3. Pressuring father (b = .23)

This factor was indexed by three items derived and adapted from the Bronfennbrenner Devereux and Rogers study. They mostly measured the extent to which the father applied pressure for better performance in school and to do better than other children. The father also would apply sanctions by withdrawing privileges. There were 5 other family factors with significant correlations with this factor.

The constellation of factors represented by the indicator, Pressuring Father, included Pressuring mother and also mother-child conflict. The factor, Father having high aspirations for the child, gives some validity to the measure of Pressuring Father since the father's pressure was expressed in regard to the child's educational future, The correlation of Pressuring Father with having the father perceived as being warm and democratic is quite interesting and reflects the possibility of the child perceiving the parents' pressure as concern for the childs well being.

Table 27

Significant Correlations of the Indicator, "Pressuring Father", with Other Family Factors for the Rural Sample.

#	Variable	r
388	Pressuring mother	.38
424	Warm democratic father	.33
114	Father's aspirations for childs education	.32
88	Conflict with mother	.22
91	Rules parents set	.22

The factor, warm mother, had a correlation of .21 with the father pressure factor and helps clarify this indicator.

This indicator, Pressuring Father, is renamed, Parents Strict but Warm, and it had a positive effect on the childs' achievement. The child who perceived his parent in this way tended to get better grades in school than did his sibling.

4. Conflict with mother (b = -.18)

The item was indexed by 5 items about areas of mother-child disagreement. They were: the time the child was to come in at night, the kids he ran around with, their grades in school, the places the child went, the possibility of their dropping out of school and the extent to which the child helped around the house.

There were five family factors which had significant correlations with the indicator, Conflict with mother.

Table 28

Significant Correlations Between the Indicator, "Conflict with Mother" and Other Family Factors

#	Variable	r
388	Pressuring mother	.36
91	Rules set by parents	.31
385	Authoritarian mother	.27

421	Mother who works has a negative effect on children	.27
430	Pressuring father	.22

This essence of this set of factors is that the child perceived the mother as being a person to be reckoned with and therefore there was conflict. The indicator is renamed, "Conflict with a strong mother".

Children who perceived the mother this way did not do as well in school as did the sibling who perceived the mother as being less authoritarian and less pressuring, and therefore had less conflict with the mother. Had there been a good deal of positive affect associated with the mother's strength, the consequence might have been different.

5. R's perception of the self as being more active than the sib (b = .13)

The perception of self as being active was indexed by R's rating of self and sib on seven items. The value was R's score minus sib score. The more positive the score, the more the child perceived the self as being a more active person than the sibling.

There was only one factor which had a significant correlation with this indicator and it was an artifact of the statistical calculations. There was a correlation of .74 between the indicator and the extent to which R perceived sib as being an active person. The less Sib was perceived as being active, the more likely R would be to perceive R-Sib as a more active person.

Four family factors related to this indicator which did not reach the .01 level but aid in the clarification of its meaning. The more active R perceived himself in relation to Sib, the less hir felt that Sib was favored by the mother, the less R felt that there were many strict rules in the family, the less R felt that the mother was authoritarian and the less R felt that the father had high educational aspirations for hir. If R felt that hir had a more active personality than did Sib then R tended to perceive the family as being permissive and as favoring R over Sib. The indicator, "R's perception of the self as having a more active personality than the sibling" also includes a feeling of family permissiveness and favoritism.

The Beta weight indicated that this factor was positively associated with academic proficiency with the sibling who felt more active, more favored and that the family was more permissive, doing better in school than the sibling who did not feel that way as much.

6. Inner directedness of Sib as perceived by R (b = -.13)

This factor was based on the same set of items that measured the active self perception but the items were combined differently. They measured the extent to which R was directed in his action by internal rather than external forces.

There were two statistically significant correlations with the indicator. One of these was an artifact, the difference between the inner directedness of the self and that of the sibling ($r = -.74$). In other words the less Sib was perceived as being inner directed, the more self was perceived as having more inner direction than Sib.

The second correlate of the indicator was the family factor, Pressuring Mother, which had a correlation of -.26. This signifies that the more inner directed Sib was the less the mother was perceived as being a pressuring mother. Pressure from these children came from within themselves.

Some of the correlations at the .10 level give further support to the conclusion that the more self-contained Sib was the more permissiveness. These were negative correlations of -.15 and -.16 between the item and"fathers decisioning making in the family" and "pressuring father." Also, the correlation with the childs decision making power was .15.

The indicator, inner directedness of the Sibling, included family permissiveness.

The more inner directed Sib was perceived to be, in association with family permissiveness, the less likely the child was to achieve better than the sibling.

7. Father's aspiration for R's education (b = -.20)

This variable was indexed by a single question on a seven point scale from the statement that the "father wants R to stop going to school as soon as he can," to "father wants R to go to graduate school."

There were two statistically significant correlations with the indicator. Mothers expectations for R's performance in the classroom was correlated .56 and pressuring ather correlated .32.

The indicator, father's educational aspirations for R seems more appropriately to be measuring parental educational aspirations, coupled with pressure for the child to achieve well in school.

The negative relationship indicates that if Sib is doing less well than R then the father is perceived as pressuring Sib to do better and the father wants Sib to go on for further education. It would seem that father's higher aspiration for education for Sib may be an indication of an unrealistic goal as perceived by Sib who is already not doing as well in school as R. R, the achiever, may require less pressure. This indicator may be differentiated from Number 3 where father-pressure was associated with the father being perceived as a warm person. In that case the relationship was positive with achievement. Without the positive affect associated with having higher aspirations for the child, the consequence is a negative one.

8. Mothers' expectations for R's performance in the classroom (b = .19)

This indicator is different from the preceeding one in that it measures the mothers' expectations about the level of performance R is expected to have in the schoolroom. The range was from a code of 0 indicating that the mother didn't care what the child did, to a score of 5 meaning that she expected him to be one of the best in the class.

The correlation of .56 with fathers aspiration for the child's level of educational progress as found in the previous indicator is repeated here, but this time the mother was the pressuring person (r = .24) and father pressure was not included. The title, High parental expectations and pressuring mother, seems appropriate. There was a correlation of .16 with the variable loyalty and empathy with parents indicating the positive affect associated with the variable.

The relationship was positive and R, who perceived the parents as having high expectations for him, coupled with a mother who provided pressure for this performance, resulted in having R do better in school than did Sib who did not feel that way about the parents. Note that the differentiating element between this and the previous indicator was the source of the pressure. If it was provided by the father, the result was a lower level of performance than if the mother was the source of pressure even though the aspiration and expectation for performance level was not different.

9. Financial independence from parents (b = -.10)

The two items indexing this factor were the childs' earning his own spending money and his spending time on a paying job outside of the home. The title, Financial Independence, is not quit accurate since the child was in junior high school and dependent of the parents. On the other hand, earning his own spending money gives the child more say about how it will be spent and may modify his relationship with the parents differently from the sib who does not work outside of the home for pay.

There were no other family factors significantly related to this indicator and the only hint about its broader meaning is derived from a correlation of -.14 with the variable Warm-democratic mother. The child who worked outside of the home felt his mother was less warm than did the child who was not working.

The minus beta means that the child who worked outside of the home tended to do less well in school than did his sibling who did not work. It should be noted that the finding does not relate to whether having children work outside of the home for pay results in lower school performance but there is a suggestion that this may be so in families where one junior high school child worked and the sibling did not.

The suggestion of the employed child having less maternal pressure may reflect the childs greater independence from his parents and gives some validity to the description of the indicator as being a parent-child one rather than being defined in the demographic or self sections of the report.

The correlation with lack of maternal warmth may reflect a motivation for the child to work in order to find a substitute source of gratification. Employment may also be taking the place of school achievement in comparison to the sibling who may be rewarded for school accomplishment.

Summary of Findings about the Family and the Dependent Variable for the Rural Area

Parents who were stricter and warmer to one child seemed to give him more power to make his own decisions in the family. This child felt he was a more active, self determining person who was doing better in school. On the other hand, if the child was earning his own spending money, he tended to have more negative feeling toward the family and was doing less well in school. It was as if this child was getting ready to withdraw from the school and home toward the world of work. He may soon be a school and home leaver.

Strictness and conflict in the home without the feeling of warmth was associated with lower school achievement for that sibling. While the mother's having high aspirations for the child meant that the child would do better in school, pressure from the father had a negative effect. There may be different ways pressure is applied to a child by the two parents, and fathers might look to the mother for instruction about how to apply pressure that is functional for increased achievement. Likewise when the mother finds that she and one of her children are having more conflict than with another child, she should examine the relationship since it may result in that child's doing less well in school. If the child is already doing less well and school achievement is a source of the conflict, the mother should recognize that the conflict may not be operating to increase the child's school performance.

There was little effect of the siblings relationship with each other on their differential school achievement. Although the child who felt more active and more inner directed than the sibling did better in school, sibling rivalry or positive sibling interactions did not matter.

Providing love, limits and helping the child to grow seemed to pay off in the child's schoolwork. It may be that one of the best ways to help a child do better in school than he is, may be to focus on his parents in the rural setting.

The strict, authoritarian repressive family does not seem to be positive for achievement - more warmth and understanding and more openness in expression of feeling might result in children feeling stronger about themselves and more able to cope with school.

RURBAN AREA: RELATIONSHIP OF THE FAMILY INDICATORS TO THE DEPENDENT VARIABLE

SELECTION OF THE INDICATORS

Five family variables met the criteria for significance in the rurban area, as shown in the table.

Table 29

Beta Weights and F Values for Family Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area.

#	Variable	Beta	F
88	Mother-child conflict	-.25	8.31
385	Authoritarian mother	.17	3.59
114	Father has high aspiration for R's education	.11	1.86
412	Father power in the family	-.14	2.69
403	Loyalty to and empathy with parents	.12	1.88

The multiple correlation for all of the family factors was .40 and they accounted for 16% of the variance in the dependent variables. The 5 indicators had a multiple R of .33 and had 11% of the variance or 75% of the total. The multiple R of .33 had a F value of 3.26 and with 5/138 degrees of freedom was significant beyond the .001 level.

The F value for all of the items was 1.05 and was not statistically significant indicating that the addition of the other items added more error than they accounted for.

Correlates Between the Indicators and Other Family Variables

1. Conflict with mother (b = -.25)

Five factors were significantly correlated with the indicator, Mother-child conflict.

Table 30

Significant Correlations Between the Indicator "Mother-Child Conflict" and Other Family Variables.

#	Variable	r
385	Authoritarian mother	.37
388	Pressuring mother	.34
446	Mother more authoritarian-pressuring for self than for sib	.28
421	Working mother has negative effect on children	.23
103	Sibling rivalry	.22

The essence of this constellation of factors is of a conflictful, hostile atmosphere in the home. Mother-child conflict is associated with a pressuring father, conflict with both mother and sibling and a feeling that mother was particularly hostile to him.

When a child perceived the home as conflictful, he did less well in school than did the sibling who did not have this perception. The child did better in school if he thought of the home as a place where there was less pressure, where he had less conflict with the mother and with his siblings and where, if the mother worked, she did not feel too tired to show interest in her childs school work, and where children did not have to give up their activities to help around the house because the mother was working.

2. Authoritarian mother (b = .17)

There were eight family factors correlated with this factor.

Table 31

Significant Correlations Between the Indicator, "Authoritarian Mother," and Other Family Variables.

#	Variables	r
427	Authoritarian father	.46
388	Pressuring mother	.37
88	Conflict with mother	.37
446	Mother more authoritarian pressuring	

	for R than for Sib	.37
403	Loyalty to parents	-.28
105	Mother favors sib	.25
103	Sibling rivalry	.24
421	Working mother has negative effect on children	.24
430	Pressuring father	.22

This indicator has some similiarity to the previous one. Both had conflict with an authoritarian-pressuring mother but the second indicator had more focus on the place of the father. He was also seen as authoritarian and pressuring indicating that there was consistency in the treatment of the child. When there was this consistent family pressure the child did better in school, than did the sibling who did not perceive as much pressure from both parents. This consistent family pressure on the child did not result in his liking the parents or wanting to be with them but it was functional for his school progress.

3. Father's aspirations for R's future education (b = .11)

There was only one other factor associated with this variable. It was mother's aspiration. (r = .61) This factor should be retitled "Parental aspirations for R's education." Children whose parents held higher level of aspiration for the child did better in school than did those who felt their parents did not want them to go as far. It may however be that children who were doing well in school had parents who felt they should continue further with their education.

4. Father power in the family (b = -.14)

The four items indexing this variable dealt with the distribution of decision making power between the husband and wife. The areas investigated were about who made decisions regarding the child's doing chores, about managing family money, about rules for what the child may or may not do, and about what food should be prepared. Two of the items had to do with the child, one was a more traditional female area and one a male one. The higher the score the more the father had the say and the smaller the score the more the wife decided matters.

There was only one significant correlation - loyalty to parents (r = .26). Perceiving his father as stronger meant that the child felt more positively toward the parents. However, the father-dominated family did not result in higher achievement for the child. Children who felt the mother was stronger in relation to the father did better in school than did children who felt the father was more dominant although they felt less family loyalty.

5. Loyalty to and empathy with parents (b = .12)

This factor was indexed by four items related to positive communication patterns with parents: being willing to do as grown-ups want him to, being unwilling to leave the parents, and a feeling that parents focus on the positive qualities of children.

There were six significant correlations with this indicator.

Table 32

Significant Correlations Between the Indicator "Loyalty to Parents" and Other Family Variables.

#	Variable	r
382	Warm democratic mother	.39
421	Mothers working has a negative effect on children	-.29
385	Authoritarian mother	-.28
424	Warm democratic father	.27
412	Father power in family decisions	.26
91	Parents set rules	.23

In the previous set having a father who had a good deal of say about family matters was related to loyalty and empathy to parents, but the regression direction was negative. In this indicator both mother and father were seen as warm, leading to general positive affect from both parents and although rules were set, the child did not feel the mother was authoritarian or would be neglectful if she worked. This indicator represents a positive family atmosphere. When the child felt that the family atmosphere was more positive than did the sibling, the child did better in school. On the other hand if the child felt that the atmosphere was more negative, that child did less well.

Summary of the Indicators and Other Family Variables

In summary, the first indicator,conflict with a strong mother, combined a number of factors dealing with a home atmosphere where there was conflict between the mother and child and between the sibling and the child. The mother was not only seen as a source of conflict but was also a strong person, authoritarian and pressuring. There was no significant relationship with any of the father factors in this indicator. The relationship with the dependent variable was negative suggesting that children who felt that the mother was a source of conflict and who had sibling rivalry coupled with the feeling that the mother was even more authoritarian and pressuring to the self than to the sib were less likely to do well in school than the sibling who did not have these feelings.

The second indicator,consistent parental pressure, was similar in many ways to the first. This indicator, authoritarian mother, had a high overlap of correlations with the previous indicator. The major difference between the pattern of correlations for the two was that the second one included the father. If there was mother-child conflict but mother and father were both seen as consistent, then the child did better in school than if his sibling did not perceive the family in this way.

The father's influence was further clarified by the next two indicators. If the father was too strong in the family, especially in relation to the mother, the child did not do as well in school. It seemed that the child did better in school if he thought there was a balance of parental forces, especially if both parents were perceived as being equally strong.

The other factor indexed high aspirations for the child's educational future and this aspiration was shared by the mother. Under this condition of parental high aspirations the child did better in school than the sibling for whom the parents did not have such high aspirations. It may be , though, that parental aspirations are as much a function of the childs abilities as an internal state of the parents.

The last factor in the rurban area combined a number of positive affect dimensions. Children who felt that the mother and father were warm and democratic; where the mother was not authoritarian; and where the father had more power in the family than did the mother; and where there were definite rules, did better in school. The sibling who felt that the parents were colder, where the father was weaker than the authoritarian mother and where rules were not definite did not do as well in school.

In the rurban area, mother-child conflict had negative consequences for the childs school performance. A father who was definite but not too overbearing, even though there was conflict with the mother and the sibling, had a positive consequence. Having high hopes for the child seemed to be a constructive consequence in this area where parents in general tended to be quite pressuring for academic success. Children were handicapped without it. In other words if both parents, in effect said to the child that it didn't matter to them how far he went in school, the child did not do as well as if the parents indicated they cared and wanted him to get ahead academically. The ideal circumstance of the "good family" seemed to work. Love, limits, and a paternal-centered-family- setting promoted positive consequences in the school setting. The family and the educational systems were related in a positive way. A belief that one had good family and doing good school work went together.

URBAN AREA:
RELATIONSHIP OF THE FAMILY INDICATORS TO THE DEPENDENT VARIABLE

SELECTION OF THE INDICATORS

Eight family variables met the criteria for significance in the urban area, as shown in the table.

Table 33

Beta Weights and F Values for Family Vari lated to Differences in Academic Achievement of Siblings in the Urban Area.

#	Variable	Beta	F
105	R feels mother favors sib more	-.19	5.16
88	Mother-child conflict	+.16	3.72
442	Warm, democratic mother for R - warm, democratic mother for sib	+.11	1.85
409	Child power of R in the family	+.11	1.69
430	Pressuring father	-.16	3.22
100	Total sib - R interaction	+.07	.66
446	Authoritarian pressuring mother for R - authoritarian pressuring mother for sib	-.13	2.27
388	Pressuring mother	+.14	1.85

All of the family factors had a multiple correlation of .42 and accounted for 17% of the total variance The F value for these factors was .98 and not significant.

The 8 selected factors however had a multiple R of .37 with an F value of 2.72 which was significant at the .01 level. The 13% of the accounted for variance was over 75% of the variance attributable to all of the items and we may conclude that the eight items represented the total.

Correlates Between the Indicators and Other Family Variable

1. R feels mother favors sibling more than self (b = -.19)

This indicator was indexed by a single item asking the child how often he thought his mother was on the side of the sibling rather than on his side. The larger the number the more often the child thought the sibling was favored.

The two significant correlations, perceiving the mother as not being warmly democratic (r = -.22) and perceiving her as authoritarian (r = .26) showed that the child felt the mother not only favored the sibling, but also was cold and domineering.

The factor represents the child's feeling that he is rejected by his mother. Collaboration for this redefinition of the indicator is found in the other lower order correlations. The rejected child also felt that his mother pressured him, was more authoritarian to him than to the sib and he in turn had less loyalty to the parents.

The direction of the regression coefficient means that the rejected child did less well in school than did the sibling who did not have this feeling about the mother.

2. Conflict with mother (b = .16)

There were three items which had significant correlations with the indicator.

Table 34

Significant Correlations Between the Indicator "Mother-Child Conflict", and Other Family Variables.

#	Variable	r
91	Definite rules about child behavior	.35
388	Pressuring mother	.26
385	Authoritarian mother	.22

The indicator represented the constellation of factors about having many definite rules about what was expected of the child, combined with perception of the mother as being authoritarian and pressuring. In general,these factors seemed to represent a strict mother who was a force in the childs life for school accomplishment. The child knows what is expected by the mother.

Having the mother perceived as being strict by one child seems to have that child do better in school than the sibling who had less of this feeling.

It may be that strictness in the home is more crucial for accomplishment in the large city ghetto areas than in the rural and rurban milieu since there may be more counter forces in the large city than in the other two areas.

3. Mother perceived as being more warmly democratic for R than for sibling (b = .11)

The three items indexing this factor were derived from the Bronfennbrenner Scale of parent-child relationships.

The items were rated on a five point scale of frequency. They asked about how often the child felt that the mother was there when needed, whether she explained why she wanted the child to do something and whether the child understood what the mother expected of him. They combined both warmth and using verbal persuasion.

There was only one significant correlation with this sibling difference score and that was the statistical artifact of a positive relationship with the extent to which the mother was perceived as being warm by R.

The positive beta weight for the item means that the more the child felt the mother favored him over the sib the better the child did in school.

4. Child decision making power (b = .11)

The number and definitness of rules in the family (r = -.25) was the only significant correlation with child decision power. This relationship helps to define the indicator by the notion that the fewer rules there were in the family the more likely the child would have responsibility to make his own. Other relationships which were significant at the .10 level clarify the nature of this indicator even more. They were that the more the child felt he had the power to make decisions on his own the less likely he felt there was sibling rivalry. He also felt the father was less pressuring and felt more loyalty to his parents. In general, the item seemed to be representing a form of child-centered family.

The sign of the beta weight indicated that the more the child felt the family was child centered, the better he did in his school work. The sibling who felt that his parents had a good deal of say about decisions affecting him, the less well he did in school in the urban area.

5. Pressuring father (b = -.16)

The indicator was correlated with four other family factors.

Table 35

Significant Correlations Between the Indicator, "Pressuring Father", and Other Factors

#	Variable	r
388	Pressuring mother	.38
424	Warm democratic father	.30
427	Authoritarian father	.26
114	Fathers aspirations for R's education	.24

The relationship between a pressuring father and one who is authoritarian and who has higher aspirations for the child's level of educational attainment is quite expected. Family consistency was found by the high correlation with the mothers pressuring.

This factor seems to be representing parental pressure with paternal authoritarianism.

The negative beta weight indicated that the child who perceived the parents as being pressuring even though warm, was more likely to be doing less well in school. It may be that the cause and effect relationship was reciprocal with the child who did less well in school receiving more parental pressure and the child who was doing well in school needing and receiving less pressure from the parents.

6. Interaction with sibling (b = .07)

There were six items indexing this variable. They all asked about how often the child and his sibling did each of the things:

1. Talked about problems
2. Played games or sports together
3. Worked around the house together
4. Did things together with the same friends
5. Helped each other with homework
6. Argued with each other

The higher the score the more interaction the siblings had with each other. Most of these interactions were positive. There were six factors which had significant correlations with this indicator.

Table 36

Significant Correlation s Between the Indicator, "Sibling Interaction", and Other Family Factors

#	Variable	r
382	Warm democratic mother	.29
103	Sibling rivalry	.24
385	Authoriarian mother	.24
388	Pressuring mother	.24
424	Warm democratic father	.24
219	Sibling perceived as having an active personality	.23

Three of the correlates refer to the mother, she was warm, pressuring and authoritarian. This kind of mother may promote or perhaps make neccessary sibling interaction. If the mother was a person to be reckoned with and whose support and control was valued, it would be predicted that the siblings would be more likely to have sibling rivalry. The high amount of interaction may be symptomatic of their ambivalence toward each other. They had both positive interactions and also sibling rivalry. The sibling was perceived as being a more active person if there was more interaction between them. Having a warm father also related to the extent of sibling interaction. In general then, families with high sibling interaction were those with a generally high level of interaction among its members, warmth, pressures and rivalries being the rule.

The child who perceived the family as being highly interactive was more likely to do well in school than his sib who did not have this perception.

7. Mother perceived as being more authoritarian-pressuring for R than for the sibling (b = -.13)

This indicator was related to those factors which makeup the difference score. If the mother was authoritarian (r .38) and pressuring (r .33) then the child perceived the mother as being more so to him than to the sibling. Another factor which was significant at the .05 level was loyalty and empathy to parents. (r -.20) Also, the variable R feels that mother favors the sib more than the self was positively correlated (r .17).

When the mother was perceived as being more authoritarian-pressuring to one child than to the other and this was coupled by feelings of favoritism toward the other child, that child did less well in school than did the child who felt he was the mothers' favorite.

8. Pressuring mother (b = .14)

This factor was indexed by three items from the Bronfen brenner Scale. They refer to maternal pressure to do well in school, to do better than other children and by deprivation of privileges as a mode of punishment.

There were six items which correlated significantly with the variable.

A pressuring mother appeared to be highly related to a pressuring father and to both mother's and father's high expectations for the child in the educational world. The mother was perceived as both warm and democratic but also pressuring, which led to sibling rivalry. There was high sibling-mother interaction.

There was some similarity between the indicator number 6, except that the present one incorporated the father as a more active part of the family. Consistent, firm and warm parents resulted in better achievement for that sibling who saw them that way.

Table 37

Significant Correlations Between the Indicator, "Pressuring Mother," and Other Family Factors for the Urban Area.

#	Variable	r
430	Pressuring father	.38
382	Warm democratic mother	.28
88	Conflict with mother	.26
107	Mothers expectation for R's schoolroom performance	.25
100	Sibling interaction	.24
114	Fathers aspirations for R's educational level	.23
103	Sibling rivalry	.23
385	Authoritarian mother	.22

Summary and Discussion of the Relationship Between the Family and The Dependent Variable in the Urban Area.

Of the eight indicators, four related directly to relationships between the child and the sibling and one dealt with the child's power as opposed to the parents. Two were mother-child relationship variables and only one related to the influence of the father on the differences in school achievement between the two siblings.

Of the sibling relationship indicators, two had negative beta weights with the dependent variable. If the child felt the mother favored the sibling over the self, he identified the mother as being colder and more authoritarian. The other negative factor was the R feeling that the mother was more authoritarian and pressuring toward him than toward the sibling. On the other hand, if the child felt that the mother was warmer toward him than to Sib, and if the siblings had a number of positive interactions with each other, then R did better in school. While these have been classified as sibling relationships, it is clear that the meaning of sibling rivalry or cooperation comes from the parents and in this case from the mother. There was only one correlation with any of the four sibling attitude indicators that involved the father and that was the positive relationship between the variables, sibling interaction and warm, democratic father. Three mother variables correlated with the sibling rivalry indicator - mother as being warm, authoritarian and pressuring toward the child.

In the urban area the chain of analysis seems to extend from the quality of the mother-child relationship to attitudes of siblings for each other to the academic achievement of the sibling. If the child felt the mother was more on his side than on the siblings, then the child had more positive relationships with the sibling, and with the mother. This chair of events within the family was related positively to the child's doing better in school. The opposite to this chain was if the child felt the mother favored the sibling, the child had more sibling rivalry. This rivalry did not result in his doing better in school.

The two indicators that dealt more directly with the childs perception of the mother were both positively relatedto school achievement of the child in relation to the sibling's achievement. They were the indicators, pressuring mother, and conflict with the mother. In other words, the more pressure and the more conflict the better the child did. Mother-child conflict was associated with there being definite rules in the family and the mothers being a strong person. Without her being a person in her own right and standing against her child when she felt the child was going in the wrong direction, the child did not do as well. This is an interesting instance where there was a positive consequence from conflict within the home and it may be that conflict from the mother may be necessary in the inner city urban environment as a counter force to the other negative influences. There were no father correlates with this indicator, which seems to represent a strict mother set of factors. (Perhaps fathers are not as present in this environment.)

The second maternal variable was called pressuring mother and included four other mother factors. They were that the pressuring mother was warm, was a source of conflict for the child, had high expectations for the childs' performance in the classroom and was an authoritarian person. She was, in a word, a significant force in the childs life. The pressuring mother also had the two siblings interacting more often with each other in positive ways and they had more sibling rivalry. The father is this kind of family had higher aspirations for the achieving child. In general this was a highly interactive family with warmth, pressure, conflict and strength by the mother. The father influence was minimal in fostering one childs achievement over the other.

The child who did better than the sibling in school had a mother who was a significant force in his life. She cared about him enough to go against the child's wishes if she thought it was beneficial. In the other two geographic areas mother-child conflict was negatively associated with higher academic achievement.

The feeling by the child that he controled more of his destiny in the family, as indexed by his making more decisions which affectted him, was positively related to the child's achievement in school. The more likely he was to make decisions, the less likely there were definite rules set by the parents for his behavior. The void in power whether deliberately created or there by default was filled by the child. Under this condition the child seemed to have more positive feelings for the parents, less rivalry with the sibling and felt that the father was less pressuring. This child-centered family had a child who did better in school than did the child who felt that he had less power. As long as the child was doing well in school, and in other areas as well, having power to make decisions in other areas of his life seemed to be an incentive. When he did not perform, mother may have set rules, become pressuring and have conflict with him. Or it may be that the two roads to academic accomplishment were; rewards when the child did well, and restrictions, punishment and conflict as a mode toward getting him back on the track. In the urban setting both of these seemed to work and apparently did so for different children within the same family.

There was one factor about the influence of the father. He was also perceived as being pressuring, authoritarian, having high aspirations and being a warm person. The mother was also a pressuring person. Under this condition the child did not do as well in school. Family pressure in this case, if associated with an authoritarian even though warm father did not appear to aid the child in school. It may be that if the father was strict with the child, the child was not doing as well as the sibling and the cause and effect chain may as likely be reversed. Problem children bring out more strictness by the parent toward the child, and this strictness may increase the severity of the problem.

Conflict with and strictness by the mother had positive consequences for the child while a similar attitude by the father had a negative consequent for the child. What is it that mothers are doing right that fathers could learn about? There were some elements in common. When the father was pressuring so was the mother and he was also authoritarian yet warm. The mother was also authoritarian, warm and had a pressing father. Mothers carried their pressure further by having higher expectations for the child in regard to his school work and she was willing to have conflict with the child if necessary. If the mother was perceived as pressuring there was a higher degree of sibling interaction and rivalry and it may be that this rivalry increased the productivity of one of the children. The degree of father's authoritarianism did not differentiate the children in the mother pressuring situation but had a more negative effect when he was a more pressuring person. Having the mother focus more of her pressuring on the child's school performance seemed to pay off more in school performance than having the emphasis in other areas.

COMPARISON OF FAMILY FACTORS FOR THE THREE GEOGRAPHICAL AREAS

In the rural area, the influence of family relations seemed crucial.

Positive relationships resulted in achievement and negative in non-achievement. If the child felt that the parents were on his side, had moderate expectations for him, gave him responsibilities and if he, in turn, had warm feelings toward them, then the child did better in school than did his sibling. Mother's expectations for positive accomplishment was associated with achievement.

An authoritarian, pressuring father was a seriously negative influence in this area, being associated with an underachieving child. These variables added to mother-child conflict and sibling rivalry, seem to document a hostile authoritarian environment, led to low achievement.

In the rurban area, the father relationships were significant but when the father was a pressuring person but not too strong, the child did better. The fathers' level of aspiration for the child was positively related to the childs accomplishment in school. Mother-child conflict was a negative factor in this area while the fathers influence was generally more positive. The relationship with the sibling was not crucial in the rurban area and this might be because the mother was not such a strong force for differentiating the accomplishments of the two children. It was important particularily in the rurban area for both parents to indicate to the child that they expected him to do well in school and to continue as far as possible along the educational ladder.

In the urban area the crucial family factor was a strong, strict mother. A child was apt to succeed if he had the feeling that the mother was on his side even though there was conflict between him and the mother. The sibling relationships were quite important but their importance was derived from competition for favors from the mother. The father's function, although minimal, was expressed by an absence of his being too pressuring and by his holding high aspirations for the child. Positive relationships within the family system were related to positive consequences in the educational system.

Mother-child conflict was a major variable in all three areas, but interest in this variable is heightened by the fact that the direction of effect was different for the three areas. Conflict with the mother was negative and disfunctional for school achievement in the rural and rurban areas, but positive and functional in the urban.

Mother-child conflict, thought of as an indicator, had some similar correlation for the three areas and these are presented here in a table so that the three areas can be compared.

Table 38

Correlates of the Indicator, "Mother-Child Conflict" in the Three Socio-Geographic Areas.

#	Variable	Rural	Rurban	Urban
388	Pressuring mother	.36	.34	.26
91	Definite rules	.31	.17	.35
385	Authoritarian mother	.27	.37	.22
421	Negative effects of mother working	.27	.23	.20
430	Pressuring father	.22	n.s.	n.s.
103	Sibling rivalry	.18	.22	n.s.
446	Mother more authoritarian and pressuring for self than for sib	.20	.28	n.s.

The rural and rurban area were similar to each other except that the rural area also had a pressuring father associated with mother-child conflict and there was conflict with siblings. This rural area may be described as an overall negative home atmosphere for the child.

The rurban area had all of the same characteristics except that the father was not seen as pressuring. There was conflict with the mother and with the siblings.

In the urban area, although there was conflict with the mother who was seen as authoritarian and pressuring, there were not the components of father pressure and sibling rivalry. There was strong relationships with the setting of rules which the child could interpret as caring.

The family and educational systems have been shown to be related to each other in quite direct ways in this study. In all areas, children who did less well in school than their siblings, had quite different relationships with their parents and siblings than did those who did well in school.

Two theories about parental behavior were proposed. They were trait theory on the one hand and field theory on the other. If there had been no differences in the way the two children viewed parent-child relations in their homes, the conclusion would favor trait theory. The parent would be a consistent object for the two children. However, a number of differences in perception about the parents were found between the two children, lending support to field theory. The parents behaved, or more accurately were perceived as behaving, differently and this differential parental behavior influenced the children's schoolwork.

THE SELF VARIABLES

A total of fifty-two (52) independent variables comprise the Self group for step-wise regression. Twenty-one (21) factors were derived from nine sets of items in the area of the psychological self. These final twenty-one factors contain a total of seventy-seven items. The Appendix "Results of Factor Analysis" gives further details about the nature and composition of the Self factors, named Self-1 through Self-21.

In addition, eleven single items were selected. None of these were elements of any of the factors. The remaining group of Self variables represented either a total sum or difference score. There were twenty (20) variables in this group. The sum scores of this nature were generally totals of positive, or positive and negative, integers. The difference scores of this nature require clarification here. Note that this difference score is first a difference-for-each-sibling (for example, ideal minus actual innerdirectedness of self concept), and second, that a calculation of the difference-between-siblings was entered using the first (individual difference) score. Thus in such cases we are speaking of a "difference (between siblings) of the difference (within siblings)".

In addition to the 21 factors then, 31 other variables were selected for the step-wise regression of independent variables representing the area of Self. These 52 variables (in abbreviated form) are presented in the following table in the following groups:

1-The Personal Self
2-The Self and Specific (Near) Others -- Adults, Siblings, Peers
3-The Self and Generalized Others

The table lists all 52 variables shown to be significant on the regression analysis for each geographical area are shown with the step number at which that variable entered the regression equation. Those with no number were not significant.

Criteria for significance were an R^2 addition of .01 or higher, an F value of 2.00 or higher for the significance of the partial correlation when the item was added, and an F significant at the .001 level or higher for the overall regression coefficient when that item was added in the step-wise procedure.

Table 39

Self Variables Included in Stepwise Regression Analysis and the Steps at Which Significant Variables Were Selected in Rural, Rurban and Urban Areas.

#	Variables	Step at which selected as significant Rural	Rurban	Urban
1. The Personal Self				
43	Self-13: High self esteem personal characteristics	1	1	-
45	Self-14: Low self esteem (Rosenberg)	-	-	-
192	Overall Anomie about prospects for future	-	-	1
174	Overall Anomie about prospects for future: school athlete	-	2	-
180	Overall Anomie about prospects for future: excel at making things with hands	-	-	-
186	Overall Anomie about prospects for future: know what you want and work steadily for it	10	-	-
189	Overall Anomie about prospects for future: be the person who gets along well with others	2	-	-
183	Overall Anomie about prospects for future: have a good sense of humor	-	-	-
177	Overall Anomie about prospects for future: get the highest marks in class	-	-	-
195	Active orientation of actual self concept	-	8	-
203	Active orientation of ideal self concept	-	-	-
199	Inner-directedness of actual self concept	-	-	8
207	Inner-directedness of ideal self concept	-	-	2
277	Self-10: Responsibility to self	7	-	-
145	Self-12: External locus of control	6	-	-

#	Variables	Rural	Rurban	Urban
289	Self-17: Personal value-individualism	-	-	-
286	Self-16: Personal value-good child role	9	-	-
283	Self-15: Accept reasons for rule breaking	-	-	-
41	Satisfied with present age	-	-	-
2.	The Self and Specific (Near) -- Adults, Siblings, Peers			
119	Talk with father	-	4	-
151	Father most significant other	-	-	-
116	Talk with mother	-	-	-
149	Mother most significant other	-	-	9
280	Self-11: Responsibility to family	4	-	-
301	Self-21: Mother's value-social conformity for R	-	6	-
295	Self-19: Mother's value-good child role for R	-	-	-
298	Self-20: Mother's value-individualism for R	-	-	-
94	Total identification with mother's values	-	7	-
122	Total talk with siblings	5	-	-
155	Peer as most significant other	-	-	-
310	Self-3: Personal integrity	-	-	-
128	Talk with teachers or other adults	-	-	7
157	Teacher or other adult most significant other	-	-	6
131	Significant other's influence on R's future	-	-	-
133	Significant other's edutional aspirations for R	-	-	-
235	Actual active-orientation of R's most significant other person	-	-	-
3.	The Self and the Generalized Other			
316	Self-5: Individualistic-competitive value for success	-	-	5
319	Self-6: Conformity to adults	11	-	4
313	Self-4: Conforming for approval from others	-	-	-
292	Self-18: Personal value-social conformity	-	-	-

#	Variable	Rural	Rurban	Urban
304	Self-1: Knowing the right people is the best way to get ahead in life	-	-	-
67	R would like to "make people laugh" more than does now	-	-	-
274	Self-9: Self-to-others belongingness	8	-	-
433	Total sexism-believing in sex-typed roles for the family in society	-	5	-
267	Self-7: Normlessness	-	-	-
271	Self-8: High subjective (attitudinal) socio-economic status of family	-	-	-
163	Non-aggressor feelings, about the Viet Nam War	-	-	-
161	Educational solutions to poverty in America supported	-	-	-
307	Self-2: Marketing personality is the best way to get ahead in life	-	-	3

RURAL AREA:
THE RELATIONSHIP OF SELF INDICATORS TO THE DEPENDENT VARIABLE.

Eleven self variables were found to be significant in the rural area, and are shown in the table.

Table 40

Beta Weights, and F Values for Self Variables Related to Differences in Academic Achievement of Siblings in the Rural Area.

Type #	Variable	Beta	F
P 43	High self-esteem - personal characteristics	-.23	7.99
P 189	Anomie about person who gets along well with others	-.18	5.02
N 125	Amount of talk with peers	.26	8.45
P 280	Amount of responsibility for family chores	.20	5.84
N 122	Amount of talk with siblings	-.15	2.59
P 145	External locus of control	.17	4.53
P 277	Responsible for care of own things	-.15	3.20
G 274	Self-to-others belongingness	.12	2.18
P 286	Personal value - good child role	-.21	3.58
P 186	Anomie about person who knows what he/she wants and works steadily at it	.12	1.99
G 319	Conformity to adults	.13	1.60

P = personal self N = near others G = generalized other

The variance accounted for by the 11 variables was .25 with a multiple correlation of .50. The F value for the multiple R at step 11 was 3.79, which was significant beyond the .001 level for 11/23 degrees of freedom.

In the discussion of the indicators, only correlations which were at or above .22 (.01 level) will be presented.

The variables describe achievement behavior as highly contingent upon the self-concept and the relationship of self to others. While siblings, peers, family and adults are all bound to achievement, siblings and peers function more as communicative vehicles, while family and adults serve as transmittors of values.

1. High self esteem (b = -.23)
This factor was composed of 4 items where the R rated the

self on whether he was above average, average, or below on four items: dependability, imagination, personal appearance, and intelligence.

There were two correlations significant at the .01 level with the indicator and both were negative. Children who had low self esteem felt anomic about the prospects for success for the kind of person they wanted to be, and thought that having a marketing personality would lead to success. The latter meant that the way to get ahead was to be pleasant to people rather than by producing something. The child with high self esteem was more likely to have an optimistic feeling about how things would work out, but to feel that success could not be easily had.

In spite of these virtues, the self confident optimist did not do as well in school as did the sibling who felt less self confident. Could it be that in the rural school having positive attitudes toward the self was not functional for increased performance in school?

2. Anomie about being a person who knows how to get along with other people (b = -.18)

This factor was one of a number of similar items which were concerned with the likelihood of success for certain personal typologies when the child said he would like to be that type. The larger the score, the more anomic about the type's being successful - the less likely a success.

Teens who were anomic about being a person who knows how to get along with others were significantly less likely to perceive themselves as having an active self concept. If one was a passive person, then it was not much to be able to get along with other people or the grapes were sour anyway. There was a correlation significant at the .05 level which enlarged the concept further. The child anomic about social aptitude valued being a "good child". These anomic teen-agers did less well in school.

3. External locus of control (b = .17)

This factor was derived from the Rosen-Rotter index and consisted of items selected because they had an education focus as well as being highly loaded on his scale. The larger the score the more external.

Table 41

Significant Correlations Between the Indicator, External Locus of Control, and the Other Self Variables.

#	Variable	r
307	Marketing personality succeeds in life	.26
116	Talk with mother	.23
151	Father as significant other	-.23
155	Peer as significant other	.23

The person with an external locus of control who felt that things happened without his being able to do much about it did feel, however, that he could help things some by being nice to others. He tended to talk with his mother, was peer oriented but did not select the father as a significant other.

This mother-peer oriented person did better in school than did the sibling. In this setting, being dependent was more functional in the school setting.

4. Responsibility for care of own things at home (b = .15)

This factor measured the extent to which the child kept his own room clean, kept clothes hung up and the room in order.

There was only one significant correlation with the indicator, which was the frequency of talking with siblings. This child also wanted to be a good child (r = .21) felt related to others (r = .21) tended to talk with teachers and other adults (r = .21) and wanted to make others laugh at him more than they did. Being such a "good child", doing work around the house, talking to teachers and being positively oriented to others might be rounded out by being the clown.

These good children did better in school than did the sibling who was not as well integrated into home and school.

5. Personal value: Good child (b = -.21)

This personal value was a factor indexed by three items: being respectful of adults, taking part in school activities, and doing things with the rest of the family.

This constellation of characteristics, viewed by many as desirable, had 13 correlations significant at the .01 level.

Table 42

Statistically Significant Correlations Between the Indicator "Personal Value: Good Child", and Other Self Variables.

#	Variables	r
319	Conformity to adults	.63
295	Mother's value - Good child role for R	.37
128	Talk with teachers or other adults	.33
292	Personal value - social conformity	.31
116	Talk with mother	.30
313	Conforming for approval from others	.29
301	Mother's value - social conformity for R	.28
310	Conformity to peer group values	.26
131	Significant other has influence on R	.25
94	Rejection of mother's values	-.24
122	Talk with siblings	.24
280	Responsible to family	.23
289	Personal value- individualism	.23

As can be seen from the table, the relationships were all in the direction of linking together a set of "good" qualities. He does not reject the mothers' values, talks with her, thinks the mother wants him to be a good child and to be socially conforming. The teen-ager was willing to conform to adults expectations and wanted approval from adults. The child was responsible to the family and valued conformity.

In spite of being such a paragon of virtue, this child did not do as well in school as did the sibling who had more spirit and may have been more rebellious. In comparison to the last indicator this one had many more characteristics although there was some overlap. "Too much of a good thing."

6. Anomie about being a person who knows what he wants and works steadily at it (b = .12)

This indicator was another of the group describing aspects of anomie and correlated with several of the others.

The correlation was .24 with anomie about doing things with one's hands, and .26 with the overall index. Also there was an r of .21 with the notion of the school athlete making it, and .20 for the child who got the highest grades in school.

This indicator of overall anomie was positively associated with the child doing better in school. Perhaps anomie here is more like cynicism and being cynical and thinking in non-conforming ways might be functional in the rural setting. A cynical child might do better in school than the sibling who felt or stated to the interviewer that everything was"fine, fine."

It will be recalled that the second indicator in this section was also an index of anomie and it was negatively associated with passivity in the self and corroborated the notion that if one is anomic from weakness it is not functional.

Near Other

The three indicators in this category were:

3. Amount of talking with peers (b = .26)
5. Amount of talking with sibling (b = -.15)
4. Responsibility for family chores (b = .20)

The two verbal communication indicators were highly related and will be considered together to facilitate differentiation, since the sign of the beta weights was different for the two.

Table 43

Significant Correlations for Two Verbal Communication Indicators and Nine Other Self Variables.

#	Variable	Peers	Siblings
116	Talking with mother	.34	.42
122	Talking with siblings	.46	1.00
128	Talking with teachers and other adults	.40	.33
125	Talking with peers	1.00	.46
313	Conformity for approval of others	.22	.26
155	Peer most significant other	.23	-
192	Overall anomie	-.22	-
203	Ideal self concept is active	.23	-
235	Most significant other has active self	-	.22
277	Takes responsibility for care of own things	-	.23
286	Personal value: good child	-	.24

The two indices were highly correlated with each other and there were three variables in common--talking with mother and with teachers and other adults, and conformity for the approval of others. However, there were some crucial differences between the two foci of verbal communication. Those who communicated with peers were more likely to select the peer as the significant other, were less likely to be anomic, and were children who wanted to be more active. The sibling-oriented teens had a significant other who was more active. Note the difference between wanting to be more active and having a significant other who was that kind of person. Wanting something for the self and perceiving it in others may be the difference between indentifying with someone and introjecting their values. The sibling-oriented were also more likely to be conformity oriented.

The peer-oriented active-self-valence teen-agers were more likely to be higher school achievers (b = .26) while the sibling-communicator conformity-oriented were less likely to have higher school grades (b = -.15)

2. Responsibility for family chores (b = .20)

The two significant variables associated with this indicator were having the personal value of being a good child and being conforming to adults. This set of variables has much in common with the variable good child but there are two major differences. The "good-child" set was much more pervasive in holding together a tight picture of overwhelming conformity. A .05 level variable differentiated with the significant other had an influence on R's future (r = .17). Although the direction of this influence was not clear, it may well represent an anchor point for emancipation from the family.

The Generalized other

The two indicators for this aspect of the self were:

1. self-to-other belongingness

2. conformity to adults

1. Self to other belongingness (b = .12)

This factor was one of several measures developed by Blackwell (1970) in a study sponsored by the Office of Education. It was indexed by five items which center around the notion that the person feels part of the larger social fabric and feels he would be missed, has significant relationships with others including the mother and peers.

Table 44

Significant Correlations Between the Indicator, Self to Other Belongingness and Other Self Variables.

#	Variable	r
45	Rosenberg self esteem	.25
304	Machiavellian personality is the best way to get ahead	-.29
133	High aspirations for R's education held by significant other	.22

These teens who felt they belonged had a high level of self esteem, were not Machiavellian (did not feel that knowing the right people was the way to get ahead as opposed to hard work) and had a significant other who held high aspirations for them in school.

Feeling desired, feeling good about the self, and having someone who had aspiration for them were positive and these children did better in school.

2. Conformity to adults (b = .13)

The two items most heavily loaded on this factor were being respectful to adults, and being willing to do as adults wanted.

Table 45

Significant Correlations Between the Indicator, Conformity to Adults, and Other Self Variables.

#	Variable	r
286	Personal value: good child	.63
131	Significant other has influence on R's future	.33
295	Mother's value: good child for R	.31
94	Rejection of mother's values	-.27
301	Mother's value: social conformity for R	.26
310	Conformity to peer culture	.25
280	Responsible for family chores	.22

Valuing the syndrome of being a good child had the highest correlation with the indicator, "conformity to adults", and gives some validity to both of the index variables. The implied pressure of having a significant other who cared about R's future seemed to be a recurrent positive element. Not only did R want to be a good child but he felt that the mother concured in his judgement or perhaps the causal chain is in the opposite direction. There are a number of other indices of conformity shown in the table. The two main elements which differentiate this set of variables from the one on the good child, with which it has many similarities, are the influence of a significant other and the impact of peers. Both of these seemed to have a positive influence on the educational level of the child. Those who were also conforming but did not have these two elements did not do as well in school.

Summary of the Self Variables in the Rural Area

Being too good and too conforming in the rural setting was not functional although these same traits worked in the urban setting where the threat to school achievement was the negative effect of the external to the family culture.

In the rural area, too close identification with the family, especially the most authoritarian family, resulted in a personal self that was too timid, passive and fearful. What was needed in order to make it, in these isolated rural areas, was a personal self that was not too timid to be intimidated by the interviewer and to give him other than "fine, fine" responses. These same conforming characteristics were also not functional in the school setting where it may be that initiative and critical thinking were apparently not required nor regarded. If relationships with near others were such that the child felt fearful, and where initiative was not rewarded, children developed into more passive types.

Relationships with peers however, were a symptom of the child's beginning to move away from the family's tight reins and resultsed in a personal self that was higher in self esteem.

There were two types of values about the relationships with the larger society, which if incorporated, seemed to be functional for a higher level of achievement in school. They were a sense of being related to the milieu and feeling accepted by a basically friendly set of personal others which gave a person a high sense of self worth. This value about the environment was reinforced by a relationship with a significant other. The second type was centered around conformity to the values of adults, but it was also tempered with an acceptance of the peer group culture and the impact of the significant other. Moving away from the too-close womb of the family was a step toward developing the kind of personal self ready to cope with the problems of the larger society.

These children were too close to the womb to see the society,while the urban child was too close to the peer cuture and needed the womb in order to be able to swim safely.

The question should be asked why those children, who had a high level of self esteem, were critical thinkers, were more peer- than family-oriented, and who were more emancipated, did not make it in school. They may be those who asked embarrassing questions of the teachers, felt strong within themselves, but had not learned to adjust to the demands of the school. It would be interesting to do a special study of those children who had made it in the personal-social way, but not in the academic. Maybe the schools need to look within themselves to discover whether they can harness the energies of the most outgoing children who might be more ready for the world outside of the rural area and its schools than they were to adapt to the schools themselves.

RURBAN AREA:
THE RELATIONSHIP BETWEEN THE INDICATORS AND THE DEPENDENT VARIABLE

Selection of the Indicators

Eight variables were found to meet the criteria for significance and are shown in the table.

Table 46

Beta Weights, and F Values for Self Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area.

Type	#	Variable	Beta	F
P	43	High self esteem - personal characteristics	.23	8.13
P	174	Anomie about being a school athlete	-.17	4.69
N	153	Sibling chosen as significant other	-.15	3.52
N	119	Amount of talking with father	-.10	1.62
G	433	Sexism	-.14	3.20
N	301	Self-21: Mother's value: social conformity for R	-.26	8.57
N	94	Rejection of mother's values	-.24	7.19
P	195	Self seen as active	.12	2.39

P = personal self *N = near others* G = generalized others

Eight variables met the criteria for significance and accounted for .22 of the variance. The F-ratio for all 8 indicators was 4.80 (d.f. 8/135) p = .001.

Correlates Between the Indicators and Other Self Variables

The Personal Self

The three indicators were:
1. high self esteem
2. Anomie about being a school athlete
3. Self concept as active

1. High self esteem (b = .23)
"High self esteem on personal characteristics" was the top-ranking indicator discriminating sibling differences in

achievement behavior. The achiever sibling had a sense of personal security strong enough to rate himself as "above average on dependability, imagination, personal appearance and intelligence."

Table 47

Significant Correlations Between the Indicator "High Self Esteem", and Other Self Variables.

#	Variable	r
310	Integrity	.31
316	Conformity to society's values for success - individualism, hard work, competition	.28
298	Mother's value - individualism for R	.24
304	Knowing the right people is the best way to succeed in life	-.23
289	Personal value - individualism	.22
45	Rosenberg self-esteem	+.22

High self esteem was most strongly related to integrity. The individualistic adolescent would "do what is best, no matter what anybody thinks; have a mind of his/her own when with friends; be likely to try out something new and different; and be willing to take a stand on something he/she thinks is important." The value of individualism was reinforced by the child and the mother (near self person) both sharing this value.

The adolescent perceived as values for both himself and his/her mother, factors composed of "doing what's best in your own mind even if other's disagree; being a leader is important and being an individual different from others."

The measures from the Rosenberg self esteem scale were significantly correlated. The scale included items on "feel able to do things as well as other people; to have self-respect; not to feel useless at times; to feel, on the whole, satisfied with self."

Transferring this strong sense of self-identity to the generalized other attitude, the achieving child said that it was not knowing the right people, but rather hard work, that was the best way to succeed in life. Society's values for success -- individualism, hard work, and competition -- were being assimilated into the achiever child's value system and these children did better in school than did the sibling.

2. Anomie about being a school athlete (b = -.17)

This indicator represents several of the other anomie items, two of them at the .01 level and one the .05. It could be as well be called overall anomie score. The indicator had a significant relationship with one other variable, marketing personality as a good way to get ahead -- having a pleasing personality as a good way to get ahead rather than getting a good education. These anomic children felt that the way to make it in the world was not by hard work, getting the highest marks in school, knowing what you wanted and working steadily at it but by selling the self as a commodity. In this geographic area the grasshopper called Willie Loman trailed in school behind the slower-moving, harder-working ant. One wonders about how well this philosophy will be reinforced in the work world.

Table 48

Significant Correlations Between the Indicator "Anomie About Being a School Athlete", and Other Self Variables

#	Variable	r
307	Self-2: Marketing personality is the best way to succeed	.30
183	Anomie about having good sense of humor	.28
177	Anomie about getting the highest marks in class	.27

3. Active orientation of self (b = .12)

This active person was one who chose to do things with others rather than by the self, tried to do better than others had a mind of his own when with friends, was likely to try out something new, and willing to take a stand on something he thought was important.

Table 49

Significant Correlations Between the Indicator "Active Orientation of Self", and Other Self Variables.

#	Variable	r
203	Active orientation of ideal self	.59
310	Integrity	.56
235	Active orientation of most significant other	.27
313	Conforming for approval from others	.26
316	Conformity to society's values for success (individualism, competition, hard work)	.26
295	Mother's value-good child role for R	.23
271	Subjective SES	-.23
298	Mother's value-individualism for R	.27

Activeness of the self concept was related to self esteem and its correlates but had some interesting differences. Active-oriented children recognized activeness of self as an ideal as well and found an active-oriented personality in a chosen significant other person, a clear example of the relationahip between the person's self and near other. The remaining correlations were nearly identical to the cluster just mentioned for the self esteem indicator: "conformity to society's values for success"; "conformity for approval from others"; "mother's value: individualism; "mother's value-good child role for R"; and "nonconformity to peer group values".

The above cluster of correlations suggests that achieving children had incorportated this image in themselves from near-others and generalized-other's attitudes. They projected an image of individuality and nonconformity among peers, and an image simultaneously satisfactory for parental and adult approval. These active children did better in school where these values were rewarded.

Near Self

There were four indicators all of which had negative beta weights.

1. Sibling selected as significant other.
2. Amount of talk with father.
3. Mother value: social conformity for R.
4. Rejection of mother's values.

1. Sibling selected as significant other (b = -.15)

Teen-agers who selected their sibling as a significant other talked more with siblings and did not select the father as a significant other.

Table 50

Significant Correlations Between the Indicator "Sibling Selected as Significant Other", and Other Self Variables.

#	variable	r
122	Amount of talking with siblings	.23
151	Father chosen as significant other	-.33

The .05 level correlations round out the picture. Selecting siblings was not an age-graded phenomenon but was a substitute for them in that peers were not likely to be chosen. Also they stated that the significant other was not influential in their life goals. This sibling then, was not a goal setter but just a friend. Their lower adaptation to adults and their having little responsibility for the care of their own things at home correlated at the .05 level.

These sibling- oriented teens who did not choose peers or other family members did not do as well in school as did their sibling. Picking a sibling who was a better achiever may have only added to his low self esteem rather than encouraging him to be independent and accept himself.

2. The amount of talking with father (b = -.20)

Children who talked more with the father about school, the war, and personal topics were in general high on verbal communication. They talked with the mother, siblings, peers, teachers and other adults.

Table 51

Significant Correlations With the Indicator "Amount of Talking With Father", and Other Self Variables.

#	Variable	r
116	Total talk with mother (frequent)	.41
122	Total talk with siblings (frequent)	.31
125	Total talk with peers (frequent)	.27
128	Total talk with teachers or other adults (frequent)	.27
151	Peer chosen as more significant other	.27
310	Integrity	.25

These children had two other characteristics. They were peer oriented and were individualistic. This wide level of contacts with a set of near others facilitated the development of the trait of individualism as the child could test out ideas with others and get feed-back from them. The selection of a peer as the significant other is interesting and indicated further attachment to self-discovery rather than conformity to the values of those representing the social order.

There seemed however to be a jarring note for these self-identity seekers -- they were not doing as well in school as was the sibling who spent less time in search of self and more on doing homework.

The next two indicators are related to the child's attitudes about the mother and will be considered together. They are: mother's value: social conformity for R (b = -.26) and rejection of mother's values (b = -.24).

The first factor was loaded on four items dealing with the importance of being liked by other students, having fun being good in sports, and wearing clothes which were right for the child.

The second factor is to some extent a function of the first in that it is the difference between a larger set of values that the child rated for the self and then rated how much the mother would hold these same values for the child. The difference scores were summed without regard to the sign of the differences so that the larger the score, the more the child felt that his values and those of the mother were different. This was titled, "rejection of mother's values". The significant element in this variable was not whether the child was accurate in describing the values by the mother but whether he thought she held them for him. There were a total of ten values which were summed for this variable.

Table 52

Statistically Significant Correlates Between the Two Indicators, "Mother's Value: Social Conformity for R", and "Rejection of Mother's Values," and Other Self Variables.

#	Variables	Mother Value: conformity	Rejection of Mother's values
94	Rejection of mother's values	-.49	1.00
292	Personal value-social conformity	.40	-
313	Conforming for approval from others	.34	-
298	Mother's value: individualism for R	.33	-
286	Personal value: good-child role	.28	-.41
319	Conformity to adults	.25	-.36
145	External locus of control	-.23	.32
301	Mother's value: social conformity for R (perceived by R)	1.00	-.49
267	Normlessness	-	.24
133	Significant other's educational aspirations for R	-	-.22

Those who said their mother held conforming values for them also held these values for themselves. They wanted to be good children and to conform for other's approval. The pattern of conformity strongly held by those who felt the mother wanted them to be conforming was consistently held by them.

The rejecters were the opposite. They did not value the good child role did not want to conform to adults, did not perceive the mother as holding a value of conformity for them.

They were however high on being normless and felt their significant other did not have high aspirations for them as far as school was concerned.

These two opposite groups had one element in common. Both were not doing as well in school as the sibling - neither the overconforming child nor the alienated. It is interesting how the chain of these attitudes extends. Those who were conforming identified with a mother who reinforced this attitude. The alienated who felt normlessness in the society felt the mother did not want the child to be a conformer and their attitude toward school was reinforced by a significant other who had low aspirations for them. We need to know more about these two types of parents and significant others who promoted lower level of school performance in children.

The generalized other

There was only one indicator which was significant for this aspect of the self.

1. Having a sexist attitude ($b = -.14$)

This factor was determined by the extent to which the respondent felt that locus of decisions about tasks should be differentiated on the basis of the sex of the person performing the task. If the child said that either the father or the mother should have more to say about the four types of decisions, then the person was scored as being on the sexist continuum. If the person said there was no difference between the sexes and both should have equal amount of say, then there was no sexism for that item. There was a five point scale with a score of zero given to the alternative of, "both the same amount of say". A score of one was given if the person said that either the father or the mother "should have more say" and a score of two if either the father or mother "should have all of the say".

Sexism was associated with anomie about having a good sense of humor ($r = .22$) and with being normless ($r = .25$).

Those who were sexist-anomic persons were less effective in school than were those who were less sexist and more related to others.

SUMMARY OF THE SELF VARIABLES IN THE RURBAN AREA.

The constellation of indicators that resulted in teenagers doing better in school than their siblings was a combination of children who thought highly of their abilities, were able to be individualistic and yet be related to the system. They valued hard work and were not willing to sell themselves nor their ideas. They had both integrity, which they felt was reinforced by parents, and were active persons. These teens valued being able to cope with problems yet felt willing to work within a system of reinforcements. They were not alienated from the group but had a strong sense of being resistant to peer-pressure.

Preferring to be an inner directed person was highly correlated with being inner directed and with being individualistic about group values. There were also two very interesting correlations significant at the .05 level which clarify the indicator. The inner-directed-aspiring child felt that the solution for the problems of poverty were non-violent and did not feel that the way to get ahead in life was to sell oneself. In other words, this group of young people were idealistic about themselves and about ways in which social problems could be solved. This idealism stood them in good stead as far as their school work was concerned. They were more likely to achieve better than the sibling who did not aspire to be more self determining, were less individualistic, tended to go along with the group, and felt that it was possible to get ahead in life by selling the self.

Those who did not manage this balance between being part of society yet different, did not do as well in school. The overconformer and the alienated did less well. Individualism was a necessary ingredient in this generally higher social class setting but it was not sufficient. Talking to adults but being peer oriented in this setting did not result in achievement. Anomic children who felt they could make it in the world by conning people, were not conning the teachers who gave them lower grades.

The relationship between the personal self, the near and generalized others was demonstrated by most of the indicators. If the significant other and the mother did not reinforce academic achievement as perceived by the child, the child developed negative attitudes about relating to society in general. He had a personal self that was alienated not only from others but from positive aspects of the self. If the mother held attitudes of individualism for the child, but tempered them with the need to work for goals, the child had high levels of self esteem, had positive attitudes toward the value of working and did better in school.

It should be noted that the summary could be written in mirror image for the other sibling.

URBAN AREA:
THE RELATIONSHIP BETWEEN THE INDICATORS AND THE DEPENDENT VARIABLE

Selection of the Indicators

Nine self variables met the criteria for significance in the Urban Area.

Table 53

Beta Weights, and F Values for Self Variables Related to Differences in Academic Achievement of Siblings in the Urban Area.

Type	#	Variable	Beta	F
P	192	Total anomie score	-.18	4.92
P	207	Inner-directedness of ideal self concept	.28	9.37
G	307	Marketing personality as the way to success	.21	6.78
G	319	Self-6: conformity to adults	.15	3.20
G	316	Self-5: conformity to society's values for success	.11	1.71
N	157	Teacher or other adult chosen most significant other	-.16	3.43
N	128	Talk with teachers or other adults	.10	1.51
P	199	Inner-directedness of self concept	-.14	2.48
N	149	Mother chosen most significant other	.12	2.30

P = personal self   N = near self   G = generalized other

F-ratio for all 9 indicators = 3.29 (d.f. 9/134)

Correlation Between the Indicators and Other Self Variables

1. Total anomie score (b = -.18)

This first indicator is measured by the sum of the disparities between the preference R has for being a certain type of person and his estimate of the likelihood of that type succeeding in life. These typologies were: the school athlete, the student who gets the best marks in school, the person who is good at making things with his hands, with the best sense of humor, who knows best what he wants and works steadily toward it and the person who knows how to get along with others. The larger the score, the greater the disparity.

Table 54

Significant Correlations Between the Indicator, "Anomie About Success", and Other Self Indicators.

#	Variable	r
298	Mother's value: individualism for R	-.28
319	Conformity to adults	-.23
295	Mother's value: good child role (self-19)	-.22

This type of anomic person felt that his mother did not want him to be individualistic or to be a "good child" type of person and R did not perceive the self as being a conforming person. R had a weak alliance with adults who he perceived as having somewhat confused values for him. It is as if he is saying "My mother doesn't want me to be a conforming good child but she doesn't want me to be running my own life either."

The child with this constelation of both home and personal anomie did not do as well in school as did the sibling who was more identified with society and felt that if one wanted to be a certain kind of person that the choice was a valid one.

2. Inner-directedness of ideal self concept (b = .28)

The second component, being actual and wanting to be an ideal and inner directed person was indexed by being willing to take a stand on a personal belief and having a mind of ones own within the peer group. The two indices had the same items but in one case the child described the self and in the other described a preference for the self. The ideal appeared at an earlier step so was more important in its unique effect on the dependent variable.

Table 55

Significant Correlations Between the Indicator "Inner-Directedness for Ideal Self," and Other Self Indicators

#	Variable	r
199	Inner-directedness of actual self	.44
310	Integrity	.29

3. Inner-directedness of actual self-concept (b = -.14)

The indicator, perceiving the self as inner directed was related to wanting to be that way and to valuing individualism.

This indicator, although step 8, is included here in the group of personal self items since it relates so directly with the previous indicator.

Table 56

Significant Correlations Between the Indicator, "Inner-Directedness of Actual Self Concept", and Other Self Variables.

#	Variable	r
207	Inner-directedness for ideal self	.44
310	Individualism	.49

There was a negative correlation with the factor called conforming to society's values of success which had individualism and competitiveness as the major components. The latter relationship was significant at only the .05 level. Those who were inner directed as opposed to those who wanted to be that way, were not idealistic but felt they were individualists who did as they felt best. Apparently in the urban setting individualism which was not tempered with a goal, being idealistic, was not functional for school achievement.

Near Others

There were 3 indicators; amount of talk with teachers, teacher or adult selected as a significant other and the mother selected as the significant other.

The first two items relating to interactions with teachers are presented together, since they had several correlations in common and were correlated with each other.

1. Teacher or other adult as significant other (b = -.16)

2. Total talk with teachers or other adults (b = .10)

Children who chose teachers as their significant other, were children who interacted and talked with teachers, but also with other adults as well as siblings. The table shows the correlations of both items.

Table 57

Significant Correlations Between the Indicators, "Teacher or Other Adult Significant Other", and "Total Talk with Teachers or Other Adults", and Other Self Variables.

#	Variable	Correlation	
		Teacher sign. other	Talk w/teacher
157	Teacher as significant other	1.00	.33
151	Father selected as significant other	-.30	-
155	Peer as significant other	-.23	-.17
125	Total talk with peers	.24	.53
133	Significant other's aspirations for R are high (education)	.19	.20
122	Amount of talk with siblings	-	.40
116	Amount of talk with mother	-	.27
119	Amount of talk with father	-	.26
295	Mother's value: "good child"	-	.19

Children who selected a teacher as their significant other did not tend to select their father or peers. However, those who did select a teacher were children who talked with teachers and peers. Significant other's had high aspirations for them to go far in school. The interesting finding is that all of this apparently positive syndrome did not result in better achievement, in fact, was more characteristic of the underachieving child in the sibling pair.

Talking with teachers was indexed by three items where R was asked to indicate how often he talked with a number of family and extra-family members about school work, the war and personal topics. Those who talked with their teachers about these topics were those who also talked more with others, including their mother, father, siblings and peers. These highly verbal teen-agers had an element of conformity to adult values as they perceived the mother as wanting them to be "good". They also stated that the significant other had high aspirations for their education and further evidence for their adult orientation was the negative correlation with selecting peers as their first choice significant other.

These verbal, adult oriented children were more likely to do better in school than were their sibling who were less verbal and less adult but more peer oriented.

The achiever who selected a teacher or adult as a significant other, on the other hand, engaged in frequent verbal discussion with the teacher as well as with peers, but did not select a peer as a significant other. He or she also did not select the father as most significant other. This must be interpreted conservatively since half of the sample did not have fathers and therefore could hardly be expected to choose "father" as a significant other.

These teacher oriented children did not do as well in school as did the sibling.

3. Mother selected as significant other (b = .12)

As opposed to a negative effect of choosing the teacher as the significant other, choosing mother for this person had a positive effect. Achievers were more apt to choose their mother than were their siblings and much less likely to choose peers. The table shows the correlations which were related to this indicator.

Table 58

Significant Correlations With the Indicator "Mother as First Choice for Significant Other".

#	Variable	r
155	Peer as significant other	-.43
94	Rejection of mother's values	-.18
271	High subjective SES (self-8)	.17
301	Mother values social conformity for R	.17

It is interesting that the mother was seen as valuing conformity for R and the child did not reject the mother's values. These mother-oriented children did better in school than did the sibling.

The low correlation (.05) with subjective SES is very useful helping define the social group for whom these relationships hold. Children of higher social class were more apt to select their mother as their significant other rather than peers or teachers.

The Self and the Generalized Other

There were three indicators related to the generalized other which were selected in the step-wise regression. They were having a marketing personality, conforming to adults and conforming to society's values of success.

1. Valuing a marketing personality (b = .12)

This variable was indexed by two items as part of a larger set which asked the child's opinion about what he thought was the best way to get ahead in life. Items were rated on a four point scale. The marketing person was characterized as thinking that having a pleasant personality and being likeable was likely to succeed and getting a good education was not.

There was only one variable which was associated significantly (r = -.23) and that was a need to make people laugh more at him than they do. The clown who was selling his personality was not so convinced that being the clown was that satisfying.

Willie Loman in the Death of a Salesman, knew he could get others to laugh at him but he had moments when he wondered whether it was fulfilling. The urban teen-ager on the way to being Willie may also have his moments of anguish but he apparently cared about the attitudes of others toward him and even more important, he was doing better in school than his sibling.

Having a marketing personality was negatively related to having an external locus of control (r = -.18). The child who believed he could sell himself and succeed by ingratiating himself with others, was one who did not believe in fate. He had chosen one means of getting rewards for himself but not the inner directed work-hard ethic usually associated with the reverse of external.

2. Conformity to adults (b = .15)

The two items loading high on this factor were feeling that being respectful to adults was important and being willing to do as adults wanted.

There were eight other variables that correlated at the .01 level or higher with this indicator and six others at the .05 level. This was then a quite pivotal variable tying together a good deal of the other variables and representing a number that were not otherwise included in the final selection of variables significant in the step-wise regression.

Table 59

Significant Correlations Between the Indicator, "Conformity to Adults (Self-6)", and Other Self Variables.

#	Variable	r
286	Personal value: good child role	.57
94	Rejection of mother's values	-.36
295	Mother's value: good child role	.31
116	Total talk with mother	.28
277	Responsibility for care of own things at home	.28
298	Mother's value: Individualism for R	.26
192	Total anomie score	-.23
203	Active orientation for ideal self	-.23

The teen-ager who was more conforming to adult values, had values of the "good child", and felt that the mother wanted him to be that way. He was more likely to demonstrate this identification with the mother by taking care of his own things at home. The child also felt that the mother wanted him to be an individual by doing what the child thought was best, being a leader and being an individual. The child spent more time talking with the mother than did the sib and did not reject the mother's values. The teen-ager felt that things would work out and did not feel anomic. There was not an aspiration to become an active person which had some element of being an acting out or at least acting against authority. The correlations at the.05 level reinforced the already clear pattern of maternal-centrism and conformity by these children who did better in school. The sibling who was not as identified with the mother's values of hard work, acceptance of social norms and reinforcement of socially approved behavior, did not do as well. These correlates index both the child and the mother valuing social conformity to adult, but not to peer values. The child valued the approval of others and was willing to conform for this reinforcement. As was previously noted the child did not want to become an active person and he also did not perceive himself as being this kind of person.

In general,a consistent picture emerges of a style of life which was functional for academic achievement in the setting of the center city.

3. Conformity to society's values of success (b = .11)

This factor was indexed by three items reflecting an individualistic-competitive approach to life.

Table 60

Significant Correlations Between the Indicator, "Conformity to Society's Values of Success (Self-5)", and Other Self Variables.

#	Variable	r
289	Personal value: individualism for R (Self-17)	.51
195	Active orientation for self	.36
298	Mother's value: individualism for R (Self-20)	.28
145	External locus of control	-.25
203	Active orientation, for ideal self	.24
304	Knowing the right people gets one ahead in life (Self-1)	-.23

The teen who conforms to society's values for success appears to be a different type of good child than that presented by the correlates of the previous indicator. This Respondent is strong and feels that things happen in the world not because of luck but because they were made that way by R. Not only did R value individualism but this trait was perceived as also being valued by the mother. R did not subscribe to the feeling that one gets ahead by knowing the right people but that the important thing was to make it through one's own efforts.

The higher achieving sibling felt that getting good grades in school was not a matter of teacher favoritism but of hard work; being commended was not a matter of formality but of praise for worthiness; succeeding in life was not an occurence of fate but of self determinism. These reflect the responses to the factor of internal locus of control and summarize the viewpoint of this child who was doing better in school than was the sibling.

Both components imply transference of behavior. Pivotal specific persons who serve as messengers of conformity are the mother (9) and teachers or other adults (6), (7). With respect to the former, patterning of values particularly for social conformity is relayed by the mother. A personal value of acting the good child role enhances a maternal value (rather the child's perception of the maternal value) of social conformity for the child.

It is interesting that if the child selects the mother as the transference object he did better in school while if the teacher was selected the child did not do as well as the sibling. In the former case there is a rejection of peers and a strong identification with the mother. If the teacher was selected R not only talked with teacher but also had channels open to peer communication. In the urban setting, the mother seemed to represent a more positive force than did either teachers or peers although teachers were clearly a more positive force than peers if channels of verbal communication with a teacher were open.

COMPARISON OF THE THREE AREAS

The self section took as its theoretical base the personal self, the significant other, and the generalized other, as proposed by G.H.Mead. In this theory, the personal self is a product of a series of relationships with a set of significant others. These others are family members, peers and extra-family adults such as teachers and school personnel. The attachment to these others helps establish attitudes toward the larger society--the generalized other. If relationships with others are positive, then there would be a positive self concept. This self concept is the mirror through which the larger milieu is viewed, and the general guides to specific action are determined. Feeling good about the self, the world takes on a positive glow and the person feels able to cope effectively. A person with high self esteem does not need to be demeaned, does not need to sell out or to try too hard to sell the self for the approval of others.

In the rural area, a too-close relationship with the family seemed to result in the self being more passive and having an orientation toward the setting that it was better to be a conforming person. This over-conformity resulted in a need to exaggerate the self and to a pattern of denial of problems, especially to a stranger-interviewer. There was some resemblance between these attitudes and the authoritarian personality cluster of traits. The families of some of the children had these characteristics.

In the urban setting, the main task was to protect the child from the negative influences of the center-city. If the child had positive relationships with the family, and especially the mother, the child was more likely to resist these influences. The mother helped by being strict and demanding. If she was selected as a significant other for the child, the child felt more a part of the milieu and did better in school. Conformity to adults, including teachers and parents, and valuing being part of the system was functional to doing better in school. Associating with peers for study, selecting them as a significant other, especially if it meant alienation from adults, was negative for school achievement. Early independence may be functional for personality development in some settings, but for these center-city teens, too early rejection of parents and a weaning from them toward a separate identity with its concomitant world view did not work out.

The rurban area was one of higher social class with more highly educated mothers. The child who identified with these strongly education-oriented persons tended to adopt their values and become more effective at school. Peer affiliations were not functional here either. Children who were given responsibility and who took it, had a more positive self esteem and did better in school. There were those children who were anomic, not adult related who were spending a good deal of energy in search of self. While they may have found some of the self, it was at the expense of their school work.

There were different patterns of self organization in the three areas, and different patterns of functioning, but there was a good deal of evidence for the relationships between the three elements as had been proposed by Mead.

THE SCHOOL VARIABLES

Thirty-six variables made up the school factor and covered eight areas: 1) variables about teachers including adolescents' relationships with and attitudes toward them; 2) variables about peer influences and sociability including an academic dependence upon peers, a social need of peers, and how adolescents spend their time; 3) variables about studying including how much time adolescents spend on their homework and how much help they receive, where adolescents study and the type of environment they need for study; 4) variables about influences upon learning including teaching methods, prior interests, personal involvement, teachers and general learning environment; 5) variables about attitudes toward the school environment and education; 6) variables measuring dropout proneness; 7) variables about how conforming adolescents are to parental educational aspirations for them; 8) variables measuring total number of days absent from school. See the Appendix for the exact items.

Of these thirty-six variables, fifteen were derived through factor analysis, four were total scores of a number of items, two were difference scores between two items, one was an average, and fourteen were single items.

In the table below, all the school variables are presented in eight groups. Each variable which was significant in one or more geographical area is shown with the number of the step at which it was entered into the regression formula. Variables with no numbers were not significant according to the set criteria.

Table 61

Stepwise Regression of School Variables on Sibling Differences in Academic Achievement for Three Geographical Areas

#	Variable	Rural	Rurban	Urban
Teachers				
340	Teacher relationships	4	-	1
343	Attitude to personal teacher character	-	-	-

Peers and Sociability				
373	Academic dependence upon and social need of peers	-	-	-
62	Total peer help with homework	-	-	8
367	Social Environment conclusive to study	-	3	-
376	Group membership and peer approval	-	-	-
364	Active sociability in school	-	-	4
69	Time spent in Church activities per week	-	-	-
72	Time spent reading for pleasure per week	-	2	-
75	Time spent taking part in social action per week	-	-	9
78	Total hours a day spent watching TV.	-	5	-
80	Total hours a day spent playing sports	-	-	-
Studying				
82	Total hours a day spent doing homework	-	-	7
25	Frequency mother helps with homework	-	-	-
29	Total help with homework	1	-	-
19	Frequency study at school	5	-	-
21	Frequency study at home	-	-	2
23	Have things at home to make studying easier	-	-	-
370	Intellectual and physical environment conducive to study	-	-	-
37	Have library card	6	-	-
Influences upon learning				
32	Best way to learn not used in school	-	-	-
331	Prior interest influences learning in school	-	-	3
337	Lack of personal involvement detracts from learning	3	-	-
328	Positive situational influences for learning in school	-	-	-
334	Negative situational influences for learning in school	-	-	-

Attitudes toward school environment and education				
322	Preferred mode of learning: discussion, watching and listening to teacher	-	-	10
325	Preferred mode of learning: working with other students and not working alone	-	-	-
349	Valence to school	-	1	-
346	Education valued	2	-	-
39	How far adolescent expects to go in school	-	4	5
Low dropout proneness				
34	Smith-Mink Low Dropout Proneness Scale	-	-	-
Conf. to parental education aspirations				
111	Difference in perceived father's educational aspirations for adolescent and adolescent aspirations	-	-	6
439	Difference in perceived mother's educational aspirations for adolescent and adolescent aspirations	7	6	-
Absence from school				
84	Totals days absent from school	-	-	-

Comparison of Stepwise Regression Outcomes for the School Variables in Three Geographical Areas

Inspection of the table shows that different variables in each geographic area explained why siblings from the same environment did not perform equally well in school. There are similarities across groups of items, but no variable had the same step number in all three areas. Positive teacher relationships proved important in the rural and urban areas, expecting to go far in school proved important in the rurban and urban areas, and difference between mother's educational aspirations for adolescent and adolescent's educational aspirations proved important in the rural and rurban areas.

The fact that areas differed points up the need to look at each area separately. However, it is possible that similar phenomena were being indicated across the three areas. Therefore, the significant correlates of each indicator by area are presented to discover if similar concepts are involved.

The next sections include a discussion for each area of the indicators with their significant correlates. Where appropriate, indicators were renamed. Some indicators within one geographic area correlated with identical variables and were therefore, measuring similar concepts.

RURAL AREA:
RELATIONSHIP OF SCHOOL INDICATORS TO THE DEPENDENT VARIABLE

SELECTION OF THE INDICATORS

The seven school indicators which were found to be significantly related to differential achievement of siblings are shown in the table.

Table 62

Beta Weights and F Values for School Variables Related to Differences in Academic Achievement of Siblings in the Rural Area.

#	Variable	Beta	F
29	Total help with homework	-.29	13.65
346	Education valued	-.21	6.76
337	Lack of personal involvement detracts from learning	.18	5.43
340	Teacher relationships	-.22	7.51
19	Frequency of study at school	.17	4.77
37	Have library card	.15	3.49
439	Mother's and father's educational aspirations	.11	1.83

The seven variables accounted for .25 of the variance in the rural area with an F value for the total of 5.99 with 7/127 degrees of freedom, p = .001. The total variance accounted for by all 35 items was .29.

Correlates of the Indicators Among other School Variables

1. Total help with homework (b = -.29)

This indicator points out how often parents, siblings, friends and other adults helped with homework. The table presents the significant correlates.

Table 63

Significant Correlations Between the Indicator "Total Help With Homework" and Other School Variables for the Rural Area.

#	Variable	r
62	Total peer help with homework	.86
25	Frequency mother helps with homework	.78
27	Frequency father helps with homework	.56
373	Academic Dependence upon and social need of peers	.38
34	Smith Mink drop out proneness scale	.32
367	Social E	.22

Expectedly, variables separately measuring how often mother, father and friends helped with homework correlated significantly. In addition, adolescents who received peer hlep on their homework were academically dependent upon and had a social need of peers. This meant they often studied at a friend's house, saw the kids in the class as the major reason for liking that class, felt being liked by other students was very important and chose to do things with others rather than be alone. These students also felt having friends and music around made studying easier as measured by social environment conducive to study. The correlations further indicated that this student was not dropout prone as evidenced by a high score on the Smith-Mink scale but had a low grade point average.

These variables interacted to portray a low achieving, academically dependent student. Therefore, a renaming of this indicator to Academic Dependence on Peers is appropriate. The lower achieving sibling was more academically dependent on peers than his higher achieving brother or sister and was obviously doing poorer in school.

2. Education is Valued (b = -.21)

Siblings who valued education had high educational aspirations and believed they would go far in school. In addition, they did not feel a job with the education they now have is good enough. Their educational aspirations were higher than what they perceived their mother wanted for them (r = .27), yet their grade point average was low (r = .22).

These relationships warrant a renaming of this indicator to High Educational Aspirations. In the rural area the lower achieving sibling had higher educational aspirations than his achieving counterpart. Perhaps he was overcompensating for his lack of success in school and gave the socially desirable answers to the relevant questions. Another explanation is that these adolescents were unrealistic about their futures. Both explanations would follow from the level of aspiration literature.

3. Lack of Personal Involvement Detracts from Learning (b = .18)

Lack of personal involvement refered to students who did not like classes in which they had no interest and in which they did not learn very much. Adolescents intrinsically motivated to learn were the higher achieving siblings. No variables correlated significantly with this indicator.

4. Positive Teacher relationships (b = -.22)

Positive teacher relationship refered to students who felt teachers understand problems of teen-agers, who saw them as adults they could discuss anything with and as people who were interested in them. They felt their teachers explained subject matter content well, made it interesting and complimented work done well. The table presents the significant correlates of this indicator.

Table 64

Significant Correlations Between the Indicator "Positive Teacher Relationships" and Other School Variables for the Rural Area.

#	Variable	r
343	Attraction to personal teacher character	.51
328	Situational influences for learning in school	.31
349	Valence to school	+.24

Students who had positive teacher relationships also had a positive attitude toward their personal characteristics. They liked their teachers who were viewed as fair, friendly, not too strict, liking their work, and capable of explaining things well. They looked to teachers and the way they taught, as well as other students, to make classes interesting. These adolescents also had a positive attitude toward school. They felt school was not a waste of time, too much emphasis was not placed on education, and did not stay out of school because they just felt like it.

These correlates indicate a more appropriate title for this indicator is Positive Attitude toward Teachers and School. In the rural area, surprisingly, lower achieving siblings reported they felt this way more than higher achieving siblings. Again, perhaps they were overcompensating for their failure in school. In addition, their needs may have prevented them from being critical and realistic. Another explanation might lie in the type of closeness that characterizes these mountain communities. Teachers who also live in the community are seen in many different roles. The school is often the only big building around and, therefore, used for social functions. Therefore, students could develop positive attitudes toward teachers and school regardless of their achievement.

5. Frequency of study at school (b = .17)
Adolescents who study at school did not study at home (r =-.31) and did not feel the situational influences for learning in school. Teacher's personality, teaching methods, other students,caused a disliking of a class (r =-.24) Therefore, the name School as a Good Learning Environment is given this indicator. Higher achieving siblings felt school was a good place to learn and study.

6. Have a library card (b = .15)
In this rural area where everything is so spread out, going to a library or making use of bookmobiles becomes a discriminating factor favoring the higher achieving sibling. No other variables correlate significantly with this indicator.

7. Difference between Mother's educational aspirations for adolescent and adolescent's educational aspirations (b = .11)
Adolescents who perceived their mothers as wanting them to go farther in school than they themselves wanted, felt their fathers had aspirations similar to mothers' (r = .68). These siblings also did not value education (r = .27), which means they did not expect or want to go far in school and felt education was overemphasized.

These variables correlated to form the new indicator Low educational aspirations and is more characteristic of higher achieving siblings. Perhaps this indicates how much their coal mining environment, where working as soon as possible is so important, has affected them and their view of the future.

Summary of the School Variables as they Relate Differences in Academic Achievement

The child who was achieving in the rural area was one who was able to work independently on his schoolwork, studied at school where the study conditions were better than at home, liked to read-or at least had a library card, and whose mother had high aspirations for his education. The achiever was realistic about his opportunities but interested in getting as much education as would be useful. He had not developed close relations with teachers.

The most interesting findings were in regard to the under-achieving child who was found to be unrealistic in his expectations, much more positive to his teachers than the achieving child in the family, contrary to what one would expect. This finding may be thought of as representing an authoritarian personality syndrome where children who were not achieving were so threatened that they had built defenses of positive affect to protect themselves from the feared results of failure.

RURBAN AREA:
RELATIONSHIP OF SCHOOL INDICATORS TO THE DEPENDENT VARIABLE

SELECTION OF THE INDICATORS

Six school variables were found to be significantly related to differential achievement between siblings. These are shown in the table.

Table 65

Beta Weights and F Values for School Variables Related to Differences in Academic Achievement of Siblings in the Rurban Area.

#	Variable	Beta	F
349	Negative Valence to school	-.21	6.75
72	Time spent reading for pleasure	.22	7.52
367	Environment conducive to studying	-.19	6.20
39	How far child expects to go in school	.18	4.72
78	Hours a day spent watching t.v.	-.11	1.94
439	Differences educational aspiration Mo-R	.11	1.93

The six variables accounted for .20 of the variance in the rurban area with an F value of 5.70 for the total, with 6/137 degrees of freedom, p = .001.

1. Negative valence toward school (b = -.21)

Those who had a negative valence toward school felt it was a waste of time, would stay out because they felt like it, and viewed education as an over emphasized institution. The table presents the significant correlates of this indicator.

The correlations indicate that students who had a negative valence toward school felt negatively toward their teachers, did not plan to go far in school, displayed dropout proneness, were absent from school frequently and performed poorly.

These variables were logically related to form a picture of a student totally alienated from school and everything associated with it. Therefore, this indicator was renamed, Alienated from School. Lower achieving siblings were more alienated than their higher achieving counterparts.

Table 66

Significant Correlations Between the Indicator, "Negative Valence to School" and Other School Factors For the Rurban Sample.

#	Variable	r
84	Total days absent from school	.43
39	How far child expected to go in school	-.27
340	Teacher relationships	-.23
34	Smith-Mink dropout proneness scale	.21

2. Time spent reading for pleasure (b = .22)
The table presents the significant correlates of reading frequently for pleasure.

Table 67

Significant Correlations Between the Indicator, "Time Spent Reading for Pleasure" and Other School Factors for the Rurban Sample.

#	Variable	r
111	Father's minus R's educational aspirations	-.25
75	Time spent taking part in social action	.24

Adolescents who read a great deal also spent a good deal of time in social action, meaning community involvement. They did well in school and had higher educational aspirations than they perceived their father having for them. Understandably, many students who were academically oriented read for pleasure. This reading might make them more aware of the problems around them and might prompt them to take part in social action.

These relationships indicated a more appropriate title for this indicator, Socially Conscious Academic. The beta weight pointed out that higher achieving siblings were more like this than were lower achieving siblings.

3. Social environment conducive to study (b = -.19)

Having a social environment conducive to study meant having a radio and or records around to listen to while studying, and having friends of the same sex or opposite sex around. Significant correlates of this indicator are shown in the table.

Table 68

Significant Correlations Between the Indicator, "Social Environment Conducive to Studying" and Other School Factors for the Rurban Sample.

#	Variable	r
373	Academic dependence and social need of peers	.35
29	Total help of homework	.32
62	Total peer help with homework	.28
80	Hours a day spent playing sports	.27
27	Frequency father helps with homework	.24

The indicator related most to academic dependence upon and social need of peers. Peers made studying and classrooms more fun. Being liked by other students and spending as much time with peers as possible was very important. In addition, receiving help on homework from peers, parents and other adults related significantly. Finally, students who needed a social environment to study also played sports frequently, a form of interacting with friends.

These variables portrayed academically dependent students who needed peers to make learning, studying and school enjoyable. Therefore, this indicator was renamed, Academic Dependence on peers. As in the rural area, it was the lower achieving sibling who depended on, and needed peers.

4. How far expect to go in school (b = .18)

The correlates of this indicator are shown in the table.

Students who planned to go far in school had higher educational aspirations than either parent had for them. In addition, they did well in school, felt teachers understood them and one could discuss anything with them. Their teachers showed an interest in them and instructed well. School was not felt to be a waste of time, or education overemphasized. They did not stay out of school because they did not feel like going.

Table 69

nificant Correlations Between the Indicators, "How Far R Expects to go in School" and Other School Factors for the Rurban Sample.

#	Variable	r
111	Father's minus R's educational aspirations	-.54
439	Mother's minus R's educational aspirations	-.29
349	Negative valence toward school	-.27
340	Teacher relationships	.23

These variables relate logically in light of Rogers' personality theory. He points out that individuals want to be in, and perform best in environments they perceive as secure and comfortable. Therefore, one would expect adolescents not to want to leave a situation in which they liked the adults and did not feel threatened by them. Similarly, one would expect them to do well in such a non-threatening atmosphere, and look upon it as something serious and important.

These intercorrelations indicated the new title, High educational aspirations as related to positive attitudes toward teachers and school, as more appropriate. The higher achieving sibling planned to go further in school and had more positive attitudes toward teachers and school than his lower achieving brother or sister.

5. Hours a day spent watching television (b = -.11)

No variables correlated significantly with this indicator. The beta weight indicated that the lower achieving sibling watched more TV a day than his higher achieving counterpart.

6. Difference between mother's educational aspirations for adolescent and adolescent's education aspirations (b = .11)

Children who felt their mothers had higher educational aspirations for them than they themselves had, felt their fathers had similar higher educational aspirations for them (r = .29).

In renaming this indicator, Low educational aspirations appeared appropriate. It is interesting that low educational aspirations was characteristic of the higher achieving sibling, which contradicted indicator number four. However, a closer examination of the correlates showed indicator four to involve educational aspirations as related to positive attitudes. The present indicator implies parental pressures. Higher achieving siblings who do not want to go far in school might be rebelling against parents. Higher achieving siblings, who did not need to cope with this pressure, planned to continue their education.

Summary of the Relationship between the Indicators and Other School Variables.

In the rurban area, the achieving child, when there were differences between the two children, was one who was more interested in academics, spent more time in reading, had support for intellectual activities from his mother, and had expectations for going far in school. This child appeared to be a typical school-achieving child.

The non-achieving child appeared to be one who was alienated from school, and had low expectations for school success, was involved with peers so that he did not study well, but got satisfaction from being with friends. This child spent a great deal of time watching TV.

URBAN AREA: RELATIONSHIP OF SCHOOL INDICATORS TO THE DEPENDENT VARIABLES

SELECTION OF THE VARIABLES

Ten school variables were found to be significant in the regression in the urban area, as shown in the table.

Table 70

Beta Weights and F Values for School Variables Related to Differences in Academic Achievement of Siblings in the Urban Area.

#	Variable	Beta	F
340	Teacher relationships	.14	2.65
21	Frequency study at home	.15	3.04
331	Prior interest = influence for learning	-.24	8.22
364	Active sociability in school	.11	1.63
39	How far child expected to go in school	-.23	5.97
111	Father's minus R's educational aspirations	-.20	4.85
82	Hours a day doing homework	.14	2.57
62	Total peer help with homework	-.15	3.13
75	Time spent taking part in social action	-.12	2.17
322	Preferred mode of learning: teacher and discussion	.12	1.94

The ten variables accounted for .19 of the variance in the urban area with an F value for the total of 3.15 for 10/135 degrees of freedom, p = .01 level.

Correlates of the Indicators among other school variables

1. Positive teacher relationship (b = .14)
Significant correlates of this indicator are shown in the table.

Table 71

Significant Correlations Between the Indicator "Positive Teacher Relationships" and Other School Variables for the Urban Sample.

#	Variable	r
343	Positive attitude to personal teacher characteristics	.44
328	Positive situational influences for learning in school	.35
322	Preferred mode of learning: discussion and teacher	.34
34	Smith-Mink dropout proneness scale	.31

Adolescents who liked their teachers and felt they could discuss their problems with them naturally viewed them as fair, complimentary, not too strict, friendly, understanding and as 'good' teachers. They liked teaching methods where teachers were in control and where they could interact with them. In addition, these adolescents do not show signs of dropping out of school and they were doing well in school.

These relationships make sense in light of Rogers' personality theory discussed previously. Students who feel secure and comfortable in school and not threatened by adult authority figures will not leave, and will perform at their best. These

These correlates indicate a more appropriate title for this indicator was Positive attitude toward teachers as motivator for learning and remaining in school.

Higher achieving siblings, more than the lower achieving brother or sister, viewed teachers positively, depended on them for instruction, interacted with them, did well in school and showed no signs of dropping out.

2. Frequency study at home (b = .15)

The table presents the significant correlates.

The variables were logically related. Those who spent much time studying were naturally putting that time into their homework. Because they worked so hard, school must be something serious and not a waste of time. They would not stay out of school because they did not feel like going. Their positive attitude toward teachers as related to the other variables can be explained in a number of ways. Perhaps they studied much to please their teachers whom they liked very much.

Table 72

Significant Correlations Between the Indicator "Frequency Study at Home", and Other School Factors for the Urban Sample.

#	Variable	r
72	Time spent reading for pleasure	.23
82	Hours a day spent doing homework	.32
343	Positive attitude to personal teacher characteristics	.22
349	Negative valence to school	-.30

Second, teachers who were positively viewed might inspire students to learn by making subjects interesting. On the other hand, maybe students who studied a great deal and were serious about school could not help but have a positive attitude toward the adult figures in this institution. Teachers could have been extrinsic motivation causing frequent study, or studying could be instinsically motivated causing a positive attitude toward teachers.

Finally, students who studied much at home also read for pleasure. One could reason that adolescents who spent so much time around school books generalized their interests to other areas. Another explanation is that students who spent much time at home read in their spare time since they were academically oriented.

These correlates indicate that a more appropriate title for this indicator was Amount of time spent studying as related to positive attitudes toward teachers and school. Higher achieving siblings spent more time on their homework and had more positive attitudes toward teachers and school than their lower achieving sibling.

3. Prior interest in the subject influences learning in school (b = -.24)

Adolescents who liked subjects in which they had prior interests were not influences by the situational aspects of the classroom. (r = .26) That is teachers' personality, methods of instruction, kids in the class, and how much was learned did not motivate learning. They also felt their home environment was conducive to study (r = .24). Such a home environment might permit interests to develop in subject areas before they were discussed in class.

The correlates suggest that Personal involvement influences learning in school, is an appropriate title for this indicator. The lower achiever of the two siblings learned because of this factor whereas, the higher achiever was more influenced by teachers and methods, as the previous indicators illustrate.

4. Active sociability in school (b = .11)
Adolescents who were actively sociable in school attended school ball games, dances and parties, belong to school teams and clubs and felt taking part in school activities was important. Significantly related to this indicator was the unliklihood of dropping out of school (r = .38) and the expectation of going far in school (r = .21). Expectedly, students strongly involved in the school milieu wanted to remain in that setting for a long time.

A more appropriate name for this indicator was Actively interested and involved in school. This is more characteristic of the higher achieving sibling.

5. How far expect to go in school (b = -.23)
The table presents the significant correlates.

Table 73

Significant Correlations Between the Indicator, "How Far Expect to go in School" and Other School Factors for the Urban Sample.

#	Variable	r
346	Education valued	.53
111	Father's minus R's educational aspirations	-.43
34	Smith-Mink dropout proneness scale	.31

Students who planned to go far in school showed no signs of dropping out, valued education, and wanted to go further than they perceived their fathers wanted them to.

A renaming of this indicator to High educational aspirations, seemed more appropriate. Interestingly, the lower achieving sibling wanted to go further in school than his higher achieving brother or sister, as was found in the rural area. Perhaps he was overcompensating for his lack of success in school and gave the socially desirable answers to the relevant questions. Or, perhaps, he was just unrealistic about the future.

6. Difference between father's educational aspirations for adolescent and adolescent's educational aspirations (b = -.20)
The table presents the significant correlates of this variable.

Table 74

Significant Correlations between the Indicator, "Difference between Father's Educational Aspirations for Adolescent and Adolescent's Educational Aspirations" and Other School Factors for the Urban Sample.

#	Variable	r
39	How far expect to go in school	-.43
346	Education valued	-.38
439	Difference in mother's educational aspirations for R and R's educational aspirations	.59

The correlations indicated that siblings who felt their fathers had higher educational aspirations for them than they themselves had, felt their mothers also had higher educational aspirations for them. In addition, they did not expec t to go far in school and did not value education.

This indicator was similar to the previous one but in the opposite direction. Therefore, the title Low educational aspirations replaces the original one. Once again, the lower achieving sibling displayed more of this characteristic than the higher achieving sibling. Combined with the previous indicator questions arise as to how lower achieving siblings could have both higher and lower educational aspirations. Perhaps they are alternative ways of coping with defeat. Upon closer examination of the correlates, it appears that lower achieving siblings who do not want to go far in school may be reacting against parental pressures, whereas those who want further education do not have these pressures.

7. Hours a day doing homework (b = .14)

This indicator correlated significantly with frequently study at home (r = .32). Naturally, adolescents who spent much time on homework were studying. A renaming of this indicator to Studies frequently was clearer. The higher achieving sibling spent more time studying than his lower achieving brother or sister.

8. Total peer help with homework (b = -.15)

This variable was a total of how often adolescents received help on homework from same sex and opposite sex friends. The table shows the significant correlates of this indicator.

Table 75

Significant Correlations Between the Indicator, "Total Peer Help With Homework" and Other School Factors for the Urban Sample.

#	Variable	r
25	Frequency mother helps with homework	.33
27	Frequency father helps with homework	.24
29	Total help with homework	.84
328	Situational influences for learning in school	.27
373	Academic dependence on and social need of peers	.51

Adolescents who received help from peers on homework were academically dependent upon and had a social need of peers. They studied at friends' houses, felt peers made classes their favorites, needed to be around friends all the time, and wanted to be liked. Other adults, such as parents, also provided help on homework. A positive relationship also existed between peer help with homework and positive situational influences for learning in school, once again pointing out the importance of peers in making classes favorites.

These characteristics related in such a way to portray a highly dependent student. Others were needed socially and academically to make learning enjoyable. Therefore, this indicator was renamed, Academic dependence on peers, and was more characteristic of lower achieving siblings.

9. Time spent taking part in social action (b = -.12)
No variables correlated significantly with this indicator. Although the research staff meant involvement in community affairs and problems , by"social action" most of the adolescents in the urban area interpreted social action to mean spending time with friends. Lower achieving siblings devoted more time to being with their friends than higher achieving siblings.

10. Preferred modes of instruction: discussion and teachers (b = .12)
This indicator refers to students who prefered being taught by teachers through discussions, lectures, demonstrations, and tutoring situations rather than working with peers or working alone. Significant correlates of this indicator are shown in the table.

Table 76

Significant Correlations Between the Indicator, "Preferred Mode of Learning: Discussion and Teacher", and Other School Factors for the Urban Sample.

#	Variable	r
340	Teacher relationships	.34
343	Positive attitudes to personal characteristics	.23
370	Intellectual and typical environment conducive to studying	.32

Adolescents who prefered their teachers to be in charge of the learning situation had positive relationships with them and a positive attitude toward them. It is understandable that students who wanted the adult authority of the teacher in the classroom viewed them as very special people. In addition, their intellectual and physical environment was conducive to study. They had a quiet place to work, a separate place to keep study materials and someone at hand who could help with homework.

Apparently a more suitable title for this indicator is Teacher oriented. In light of indicators one and two, it is not surprising that higher achieving siblings were more teacher orientated than their lower achieving counterparts.

Summary of the Relationship of the school variables to differential achievement of siblings.

The school was an important factor in the achievement of children in school. The achieving child was one who liked the teachers and liked it especially when the teachers were in charge and presented material well, when the material was new and made interesting. The achieving children had positive regard for the school and participated in school activities, did their homework without much help and were willing to spend considerable time on it. They were apparently more active in school than in social activities of the street.

The underachieving children were more apt to be involved in the social activities at home, to have lower expectations for achievement and to make even their homework more of a social activity with peers. They had to be already interested in subjects before they would be willing to spend much time on them.

Table 77

SUMMARY ACROSS AREAS OF THE INDICATORS AND THEIR NEW FACTORS

Rural Indicators	Rurban Indicators	Urban Indicators
TEACHERS		
-4. Positive attitude to teachers and school	+4. High educational aspirations relating to positive attitude to teachers and school	+1. Positive attitude as motivation for learning and staying in school +10. Teacher oriented
PEERS		
-1. Academic dependence on peers	-3. Academic dependence on peers	-8. Academic dependence on peers
ATTITUDE TOWARD SCHOOL ENVIRONMENT AND EDUCATION		
-4. Positive attitude to teachers and school	-1. Alienated from school	+2. Amount of time studying and positive attitude to teacher and school
EDUCATIONAL ASPIRATIONS		
-2. High educational aspirations +7. low educational aspirations	+4. High educational aspirations +6. Low educational aspirations	-5. High educational aspirations -6. Low educational aspirations
INFLUENCES ON LEARNING		
+3. Lack of personal involvement detracts from learning +5. Studying- school as good learning environment		+3. Personal involvement influences learning +2. Studies frequently +7. Hours a day spent studying
UNIQUE TO THE AREAS		
+6. Have library card	+2. Socially conscious academic -5. Hours a day watch TV	-9. Time spent in social activities

+ = High achiever had more — - = Low achiever had more

COMPARISON OF SCHOOL VARIABLES IN RURAL, RURBAN, AND URBAN AREAS.

The correlates of the indicators point out that many similar phenomena explain the differential achievement of siblings in all three geographic areas, substantiating the results presented in Part One. The table presents a summary of these similar concepts and the variables that index them in the rural, rurban, and urban areas. Four factors were found in all three areas, although the direction of the beta weights were not always the same.

1. Teachers
2. Peers
3. Attitude toward school and education
4. Educational Aspirations

Influences on learning was a factor found in two areas and there were unique residuals found in each area.

1. Teachers

In the rurban and urban samples, the higher achieving siblings were more teacher oriented than the lower achieving siblings. Indicator # 4 in rurban; indicator # 1,2,10 in urban.) These adolescents liked teachers who were viewed as student oriented; understanding, involved with teenagers and sympathetic to their problems. Teachers were seen as good instructors who explained things well and let you study what you were interested in. They were fair, friendly, not too strict, liked their work, and complimented the work of their students. In the urban area, higher achieving siblings also wanted teachers to do the instructing and felt they were what made classes interesting. Teachers could motivate learning, studying, and remaining in school.

In the rural area, as contrasted with the other two areas, the students who had positive teacher relationships and a positive attitude to their personal characteristics were the lower achieving siblings (indicator # 4).

It is surprising that in the rural area those who had good teacher relationships and positive attitudes toward them were not necessarily the higher achieving sibling.

An explanation for this finding may be found in the one provided by Greenberg and Others (1965). They found elementary school children who did poorly in reading assigned more positive ratings to teachers than those who were doing well. They speculated that poorer achievers may have greater defense needs as seen in their inability to be critical or realistic. This could also apply to the lower achieving siblings in this rural area.

2. Peers

Another phenomenon that effected achievement regardless of geographic are was peers. (Indicator # 1 in rural; indicator # 3 in rurban; indicator # 8 in urban). The same variables indexed this indicator in all three areas. Lower achieving siblings depended on peers academically and socially. Friends were needed to make classes interesting and studying easier. Homework was done at friends' houses and friends helped with homework. These adolescents felt being liked by other students was important and chose to do things with others rather than be alone. Their academic dependence was further substantiated by the fact that mother, fathers, and other adults helped with homework.

3. Attitudes toward school environment and education

A third factor that helps explain the differential achievement of siblings in all three geographic areas is attitudes toward school and education (indicator # 4 in rural, indicator # 1 in rurban, indicator # 2,4 in urban). The higher achieving siblings in Ithaca and Syracuse did not feel alienated from school. They did not feel school was a waste of time or that education was overemphasized. They planned to go far in school. These adolescents did not stay out of school because they just did not feel like going. In the urban area their positive attitude was further indicated by their active interest and involvement in school. They attended school ball games, dances and parties, belonged to school teams and clubs and felt taking part in school activities was important.

In contrast, the lower achieving siblings in West Virginia had more positive attitudes toward school and education than the higher achieving siblings. The same reasons that explain their greater teacher orientation apply here: the nature of their mountain communities and/or their defense needs that make them incapable of criticizing and facing reality.

4. Educational aspirations

The final common concept that explains why children from the same basic environment perform differently in school is educational aspirations. (Indicator # 2,7 in rural; indicator # 4,6 in rurban; indicator # 5,6, in urban). The same variables index the indicators in all three geographic areas. However, the directions are different. In the rural area lower achieving siblings value education and want to go far in school and higher achieving siblings do not value education and have lower educational aspirations than either of their parents have for them. These findings are similar to the findings of Brookover and Others (1967). They studied 377 male students in three public high schools in the Mid West. They found that educational aspirations do not correlate with academic performance. Perhaps the higher achieving siblings in the rural area were more realistic about their futures than the lower achieving siblings and were more affected by their coal mining environment.

In the rurban area higher achieving siblings have both high and low educational aspirations, but from the correlates of these indicators different factors are at work. Those with high educational aspirations have positive attitudes toward teachers and school. Indirectly, the whole school environment is motivating them to continue their education. In contrast, higher achieving siblings who do not plan much schooling have parents who want them to go far in school. These adolescents' aspirations may be a reaction, or a rebellion, against parental pressures.

In the urban area the reverse is true. Lower achieving siblings have both high and low educational aspirations. Both are reactions or defenses against incipient failure. Many of the same factors at work in the rurban apply to the urban area. Those who want to go far in school are indirectly influenced by school and everything connected with it. Those who want to leave school as soon as possible appear to be reacting against direct parental pressures. Or perhaps they are more pessimistic due to the effects of ghetto life.

5. Influences on learning

One indicator was common to two areas. Personal involvement as it affected learning appeared to discriminate between higher and lower achieving siblings in the rural and urban areas, although in different directions. (Indicator # 3 in W. Va.; Indicator # 3 in Syr.). In the rural area, higher achieving siblings were intrinsically motivated to learn. They disliked classes in which they had no interest and in which they did not learn very much. In the urban area, lower achieving siblings liked classes in which they were interested. Teacher and methods of instruction did not provide the stimulation for lesser achieving students of the ghetto to learn.

The rural and urban areas also shared study indicators although very different ones. (Indicator # 5 in West Virginia; indicator # 2 in Syracuse). In the rurban area, higher achieving siblings saw school as a good place to study and felt teachers, teaching methods and classmates did not distract or hinder learning. The nature of rural communities explains why studying at school and seeing it conducive to learning were important discriminating factors in this rural area. Buildings are sparse and far between. Families are large and living quarters small. Therefore, students who make the effort to study at school knowing it would be difficult to study at home or anywhere else are serious students.

In the urban area, studying frequently separates the high achiever from the lower achieving sibling. The nature of ghetto life explains why this is so important in only this area. Children were involved with peers and the street life at an early age. Students who can break away from this and spend their time studying are serious students.

6. Unique factors

Each geographic area also had other indicators unique to that area. In the rural area higher achieving siblings had library cards more than lower achieving siblings. (Indicator # 6). Because the houses in this area are not near each other, those who made use of libraries and bookmobiles were making a special effort in an academic direction. It was not surprising that these students were doing better in school.

Being a socially concious academic is an important indicator favoring higher achieving siblings in the rurban area only. (Indicator # 2). Being a university area makes college life appear attractive and provides opportunities and facilities for social involvement. Amount of time spent watching TV also separated the higher achieving sibling from the lower achieving sibling. (Indicator # 5). The lower achieving sibling watched more television. The detrimental effects of TV have concerned many - eg. Bronfenbrenner, Two Worlds of Childhood. TV watching is not an important indicator in rural and urban areas for different reasons. In the rural area many families do not have cable TV, which almost everyone one in Ithaca has. As a result, TV reception is poor. In addition, families and friends provide the social entertainment in these close knit communities. In the urban ghetto, life is just not TV orientated. Over crowded apartments prevent comfortable watching. Most TV shows are not directed at Blacks and many probably do not pay for a cable which might otherwise provide a few Black programs. In addition, peers and friends are always around to provide other diversions.

In the urban area, spending much time in social action, interpreted to mean time with friends, distinguishes the higher achieving sibling from the lower achieving sibling. (Indicator # 9). The nature of ghetto life makes this an important indicator. Children are strongly involved with peers and the youth culture from an early age. As a result of the close housing and street life, whereas in the rural and rurban areas, students are only beginning to get involved in the youth culture in junior high school. Adolescents who can not break away from peer values and the street life are incapable of spending much time studying, and taking that first step out of poverty.

CHAPTER V

INTERACTION OF DEMOGRAPHIC, FAMILY, SELF AND SCHOOL VARIABLES IN THREE GEOGRAPHICAL AREAS

The interactions among the four dimensions are indexed by variables which have significant correlations with variables from the other dimensions. If the variable had correlations only within its own dimension, it was not reported here, since these relationships were reported in the previous chapter. Those relationships reported in this chapter represent the variance shared with other dimensions. They are reported separately for each of the three geographic areas.

RURAL AREA:
SHARED VARIANCE AMONG THE FOUR DIMENSIONS

The significant indicators from the Demographic, Family, Self and School Dimensions were put together in one large regression in order to assess the relationships among them. From this regression of 33 variables for the rural sample, 23 met the criteria for significance. The numbers in each dimension were as follows:

Table 78

Variables From Four Dimensions Included in Summary Regression Analysis.

Area	Indicators # included	 # significant
Demography	9	8
Family	8	5
Self	12	5
School	7	5
	36	23

From this table it is seen that all but one of the demographic variables included in the regression were still significant when put into the step-wise regression with family, self and school variables. Half of the family variables, half of the self, and 70% of the school variables were found to be significant in this regression.

The variables from the different sets which reached significance in this final regression are grouped by sets and shown in the table. The step at which the variable entered the regression equation and beta weights are also shown.

Table 79

Step Number and Beta Weights for Significant Indicators From the Four Dimensions.

Step #	#	Indicators	Beta
DEMOGRAPHY			
2	170	IQ	.17
11	13	Attended nursery school	.09
12	66	Father living ND*	.01
15	415	Mother worked during R's pre-school and school years	-.16
19	469	Socio-Economic Index ND*	.12
20	464	Rooms per person ND*	-.19
21	9	Number of children at home ND*	-.19
23	10	Number of dropouts in family ND*	.13
FAMILY			
7	406	Has job earning money	-.19
14	430	Pressuring Father	.15
16	409	Child power	.18
22	91	Parents set rules	-.14
18	223	Inner-directness of sib. as seen by R	-.15
SELF			
4	43	Self esteem	-.20
5	125	Total talk with peers	.13
6	189	Anomie about getting along with others	-.14
8	280	Helps out at home	.17
13	145	External locus of control	.12
SCHOOL ATTITUDES			
1	29	Amount of help with homework	-.17
3	346	Education is valued	-.13
9	340	Positive teacher relationships	-.12
10	337	Not interested in school	.11
17	19	Frequency of studying at school	.11

* = ND, Non-difference score

DEMOGRAPHY

Three correlations of demographic variables with other sets reached .22, the .01 level, and five more reached .17, the .05 level. These correlations are shown with the demographic variable with which they were correlated. Four of the eight variables not shown here had no significant correlations with other sets, thus showing the unique contribution of these indicators.

Table 80

Significant Correlations Between Demographic and Family, Self,and School Indicators.

# Demographic Indicator # Correlate	Correlations		
	Family	Self	School
170 IQ (beta = .17)			
439 Mother's educational aspirations for R higher than R's.			+.21
13 Differences in attendance at nursery school (beta = .09)			
37 Have a library card			+.24
346 School is valued			-.23
186 Anomie about being a good steady worker.		+.18	
274 Self to other belongingness		+.17	
66 Father living (beta = .01)			
346 Education is valued		-.21	
189 Anomie about getting along with people		+.18	
10 Number of dropouts in family (beta = .13)			
280 Help out at home		+.26	
total	0	5	3

It is interesting that there were no correlations with the family variables as they were grouped for this research, but five from the self sets and three from the school were found to be related. Two of the components have family relations in their meaning: Mother's aspirations for the child, and the child's helping with work at home.

The correlations with IQ showed that mothers apparently were able to differentiate the brighter child from the one not as bright and had even higher aspirations for that child. The higher IQ child did better in school.

The finding previously reported that the child who attended nursery school was more apt to be an achiever, is here rounded out by showing that the achieving child was more apt to have a library card, but valued school less. His not liking schooling may reflect his experience with the school more than his intrinsic motivation and he may find getting his own books at the library more satisfying. This child who had the advantage of going to a preschool, now reported himself to be a person who related well to others. In many ways, this early good start was associated with a more effective functioning child. Whether there was a causal chain operating here or not is not shown

The correlations with father living indicated that for the child whose father was not living there was a higher value for education. In this area there were more apt to be differences in achievement between the siblings if father was living and he felt that getting along with people was more likely to pay off in the future.

Number of dropouts was related to many social class variables and here it is shown that among homes where there are many dropouts the achieving child was one with more feelings of responsibility to the family. In this rural area dropping out may be a functional act for the good of the family even if not for the child. The additional income a youth can bring in is greatly valued. Families with more dropouts had more differences in achievement between sibs.

Age differences was the only demographic factor which did not turn out to be significant on this final analysis using variables from all four sets. However, age was found to correlate significantly with three of the family variables, two of the self and one of the school variables.

It appears that the effect of age was scattered among other dimensions and that it still remains a potent secondary indicator. Its effect will be discussed in conjunction with the other variables with which it is correlated.

FAMILY

Five of the eight indicators had intercorrelations with other sets. These are shown in the table.

Table 81
Significant Correlations Between Family and Demographic, Self and School Indicators.

# Family Indicators # Correlates	Demography	Self	School
406 Child working to earn spending money (beta = -.19)			
5 Age differences	+.23		
280 Responsible to family		+.23	
340 Positive teacher relationships			-.18

430 Pressuring father (beta = .15)			
439 Mother's minus R's aspirations			+.21
122 Amount of talk with siblings		+.19	
107 Mother's expectations for R's school performance			+.18
409 Child power (beta = .18)			
125 Amount of talk with peers		+.26	
5 Age differences	+.23		
91 Parents set rules (beta = -.14)			
5 Age differences	+.26		
29 Amount of help with homework			+.26
122 Amount of talk with siblings		+.22	
274 Self-to-others belongingness		+.21	
340 Positive teacher relationships			+.20
223 Inner-directedness of sib as perceived by R (beta = -.15)			
346 Education is valued	-	-	+.18
totals	3	5	6

The pivotal place of the family is demonstrated by there being 13 intercorrelations: 3 with demography, 5 with self and 6 with school attitudes. All of the demographic correlations were with one indicator, age differences between the children.

The table shows that there was at least one variable from each of the demographic, self and school content areas which correlated with each of four family variables.

Correlates show that the child who was working to make his own spending money was the older child, still felt a great deal of responsibility to the family and did not have positive teacher relationships. This teen-ager was doing less well in school.

A pressuring father was shown to be related to a mother having higher aspirations than R had for himself to go on to higher levels of education, and also related to the mother expecting R to do better in school than he was. The pressuring father was also related to the amount of talk with siblings, which could be interpreted as more family interaction. The sibs with a pressuring father did better in school.

Young people with more child-power were apt to be the one doing better in school, were apt to be the older child in the family and the one who talked more with peers.

The parents tended to set more rules for the older child and he also got more help with homework, talked more with siblings, felt more secure and had better teacher relationships.

These children did less well in school. It is possible that they were more submissive children who said everything was "fine" especially to a stranger. This politeness apparently did not pay off in school grades.

A teen-ager who thought his sibling was more inner directed than he perceives himself to be was more likely to value education than did the sib. Externals said they valued education more than internals and this was related to being an achiever. It was the "right" thing to say to an educated interviewer. Knowing the right thing in a culture that values this attitude seemed to pay off.

SELF

All but one of the self indicators correlated significantly with variables from another set.

Table 82

Significant Correlations of Self with Demographic, Family, and School Indicators.

# Self Indicators # Correlates	Correlations		
	Demographic	Family	School
125 Talk with peers (beta = .13)			
5 Age differences	+.27		
409 Child power		+.20	
189 Anomie about person who knows how to get along with others (beta = -.14)			
107 Mother's expectation for R's school performance		+.19	
114 Father's aspirations regarding R's future education.		+.25	
227 R has more active personality than sib is perceived as having		-.26	
280 Responsibility for family chores (beta = .17)			
10 Number of dropouts in the family	+.26		
88 Total conflict with mother		+.19	
406 Child has a job		+.23	
145 External locus of control (beta = .12)			
5 Age differences	+.18		
totals	3	6	0

There were three significant correlations between the self indicators and demographic variables, six with self variables and none with a school attitude variable, indicating that there was a higher number of relationships between the family and the self than with other areas.

From the correlations with the self section, we find expansions of the findings reported for the self factors with each other. The more a teen-ager talked to his peers, the more power he had in relation to his parents in making decisions regarding his own activities, the older he was and the better he was doing in school.

The child who showed more anomie about the importance of getting along with others, thought his sib was more active than he was, thought his mother and father both had high expectation for him in regard to how far he would go in school. This teen was apt to be the non-achiever.

A young person who did chores at home was likely to be found in a family with a number of dropouts, was liable to be a child with more conflict with his mother than his sibling, and to be a young person who was moving out into the world since he already had a job to earn his spending money. He was more apt to be doing better in school.

The older sibling was more likely to have an external locus of control rather than an internal and this helped him be an achiever by his being more aware in his culture of others' demands on him.

SCHOOL

Four of the five school variables had intercorrelations with other sets, as shown in the table.

Table 83

Significant Correlations of School With Other Sets.

# School Variables # Correlates	Correlations Demography	 Family	 Self
29 Gets help with homework (beta = -.17)			
5 Age	-.40		
88 Mother-child conflict		+.17	
91 Parents set rules		+.26	
122 Amount of talk with siblings			+.36
277 Responsibility for care of own things at home			+.18
286 Personal value: "Good child role"			+.21

346 Education valued (beta = -.13)			
13 Attendance at nursery school	-.22		
66 Father living	-.21		
223 Inner-directedness of Sib as perceived by R		+.18	
340 Positive teacher relationships (beta = -.12)			
91 Parents set rules		+.21	
274 Self-to-others belongingness			+.23
286 Personal value: "Good child role"			+.32
319 Conformity to adults			+.26
406 Has job to get spending money	-.18		
337 Lack of personal involvement in school (beta = .11)			
277 Takes care of own things			-.19
total	3	5	7

There were three intercorrelations of the school variables with demographic variables, five with family variables and seven with the self.

The teen-ager who got more help with his homework was more likely to be the younger sibling, to have more mother conflict and to perceive that his parents set more rules for his behavior -- perhaps that he had to do his homework. The teen-ager who got help with homework also did a lot of talking with siblings, took care of own things at home and valued the "good child" role, apparently was a child who wanted to please but was apt to be the underachiever.

A teen-ager who said he valued education was less likely to have gone to nursery school, and to have had a father living. The teen who wanted to do well in school saw his sibling as one who was inner directed, willing to work for his own rewards. He also perceived the self as being less in control than the sibling.

Students with positive teacher relationship had parents who set rules, and were the kind of person who felt comfortable with others. These students also were conforming to adult standards and valued being a "good child". Students with good teacher relationships seldom were those who held an after school job. They did less well in school.

Students who reported being less interested in school, thought they prefited less from school, and were also less responsible for their room and clothes at home. Although these children appeared to be less involved both at home and school, they apparently were doing better in school.

These seemingly contradictory findings will be discussed in the summary for the rural area.

RURBAN AREA:
SHARED VARIANCE AMONG THE FOUR DIMENSIONS

There were a total of 27 indicators for the four areas. These 27 accounted for 46% of the total variance with a multiple correlation of .68. This correlation was significant beyond the .001 level for 27 and 116 degrees of freedom. This correlation may be considered as very adequate for purposes of prediction.

Using the same criteria for inclusion of items in a multiple regression as were used previously in this study. The table below indicates the number included in the regression for each of the four sets and the number which met the final criteria for inclusion.

Table 84

Number of Indicators Selected From Each of the Four Dimensions

Area	Variables in Regression # entered	 # significant
Demography	8	8
Family	5	3
Self	7	1
School	7	4
total	27	16

The sixteen factors and their order of appearance in the step-wise regression are shown in the next table.

Table 85

Step Number and Beta Weights for Significant Indicators From Four Sets for the Rurban Area.

Step	#	Indicators	Beta weight
DEMOGRAPHY			
1	13	Attended nursery school	-.25
2	170	IQ	.19
6	11	Sex by achievement	.26
9	436	Number of educational things in the home	-.14
10	143	No religion	-.14

11	8	Number of girls	-.20
15	17	Sharing room with others	.13
16	139	Being black	-.11
FAMILY			
8	412	Father power in family decisions	-.13
13	385	Authoritarian mother	.17
14	88	Mother-child conflict	
SELF			
5	153	Sibling chosen as first choice for significant other	-.18
SCHOOL ATTITUDES			
3	39	R's expectation for further schooling	.13
4	349	Negative valence toward school	-.15
7	367	Social environment preferred for studying	-.16
12	12	Hours spent reading for pleasure	.14

These 16 variables accounted for 42% of the variance which was 91% of the variance accounted for by the 27 variables. The multiple correlation was .65 and the F value for the multiple correlation was 5.81, significant beyond the .001 level.

The discussion of these indicators will be done by each of the four substantive areas rather than by their order of appearance in the multiple regression. Correlations within a substantive area, have already been discussed so will not be repeated. Only the variables with correlations in another set will be shown here with those intercorrelations.

Demography

In the rurban area, there was only one significant correlation between demographic indicators and family, one with self and three with school. The significant correlations are shown in the table.

Table 86

Significant Correlations Between Demographic and Family, Self and School Indicators.

# Demographic Indicator # Correlate	Correlation Family	 Self	 School
13 Attendance at nursery school (b=-.25)			
72 Time spent reading for pleasure			-.19
88 Conflict with mother	.18		
170 IQ (b=.19)			
349 Negative valence to school			-.21
11 Sex by achievement (b=.26)			
367 Social environment preferred for study			+.18
totals	1	0	3

The child who went to nursery school when the sibling did not go was more likely to have conflict with the mother, to spend less time reading for pleasure and was more likely to be in a white family. This child then probably was a problem child and was the one the mother sent to preschool.

This child did less well in school than did the more scholarly, less conflicted sibling.

There was only one significant correlation with IQ. High IQ children tended to have a negative valence to school. Differences in intelligence quotient between the two children was a quite potent source of explanation for the dependent variable and it was more likely to be an independent trait. It is quite interesting to speculate about the reasons for the low number of correlates. It may be that in this area that children are pretty well judged on the basis of their ability and family factors, for example, were not differentially applied for the brighter or not so bright child. Likewise if children accepted as they were if they had somewhat lower ability, then their attitudes about themselves might not be associated with their intelligence.

Although the impact of having a lower IQ than the sibling did not differentiate the treatment by the family or the self perception, children and teen-agers with a lower IQ had a tendency to like school less.

Added to the previously presented material that apparently girls do better in school, it appears that girls also prefer a social environment for studying.

There were no additional significant correlations between demographic factors and other sets.

## Family

No family variables correlated with any demographic indicators. Apparently these two sets were measuring different aspects of the family basis for the child's functioning which did not overlap.

There were five significant correlations with self indicators, and four with school, thus indicating a closer tie between the family and the self and school.

Table 87

Significant Correlations Between Family and Demographic, Self, and School Indicators.

# Family Indicator # Correlate	Demography	Self	School
385 Authoritarian mother (b = -.17)			
174 Anomie about being a school athlete		+.22	
195 Self seen as active		+.21	
367 Social environment preferred for study			.18
439 Mother's educational aspirations for R higher than R's			.22
88 Conflict with mother (b=-.12)			
43 Self esteem		-.24	
94 Rejection of mother's values		+.20	
367 Social environment preferred for studying			.27
439 Mother's minus R's aspirations for R's education			.17
totals	0	4	4

Children who felt the mother was authoritarian, it will be recalled, also felt that the father was an authoritarian person. This family pattern was associated with the child feeling that he wanted to be a school athlete but did not feel that being an athlete was a successful person in the future. The child perceived the self as being active. The mother had a higher aspiration for his education than he had for himself and this was further evidence for his feeling pressured. The child preferred the company of others his age when studying, probably as an escape from the parents. Having these strict parents nevertheless seemed functional to the child in his school work since the child did better in school.

Conflict with mother was associated with a high degree of sibling rivalry but the father was not associated with this conflict. Children who had conflict with the mother had a lower level of self esteem, rejected the mother's values and the mother was perceived as hiving higher aspirations for the child's education than the child had for himself, another indication of maternal pressure and conflict. The children with maternal conflict preferred to be with children their own age when they were studying. This constellation of a hostile home environment, low self esteem,rejection of parents and a preferrence for siblings resulted in a lower level of school achievement.

## Self

Only one self variable was significant in the final regression analysis.

Table 88

Significant Correlations Between Self and Demographic, Family, and School Indicators.

# Self variable # Correlate	Demography	Family	School
153 Sibling chosen as significant other (1st choice) (b=-.18)			
39 R's aspiration for further schooling			-.20
403 Loyalty to parents		-.16	
total	0	1	1

Teens who chose the sibling as a significant-other, had lower aspirations for their further schooling and had less empathy with and loyalty to their parents. They were less likely to do well in school than their sibling.

## School

The school indicators were significantly correlated with three demographic, three family and six self indicators, as shown in the table.

Table 89

Significant Correlations Between School and Demographic, Family, and Self Indicators.

# School Indicators # Correlates	Demography	Family	Self
39 How far R expects to go in school (b=.13)			
43 Self esteem			+.26
94 Rejection of mother's values			-.26
349 Negative attitude to school (b=-.15)			
174 Anomie, being an athlete			.32
94 Rejection of mother's values			.23
170 IQ	-.21		
403 Loyalty to parents		-.20	
195 Active self			.17
367 Social environment preferred for studying (b=-.16)			
88 Maternal conflict	.28		
18 Authoritarian mother		.18	
11 Sex by achievement	.18		
72 Time spent reading for pleasure (b=.14)			
43 Total self esteem			.24
114 Father's aspirations for R's further education		.20	
13 Attended nursery school	-.18		
totals	4	3	6

The farther a child expected to go in school, the more self esteem he had, and the more he identified with his mother's values. This child also did better in school than did his sibling.

Teen-agers with a negative attitude toward school in the rurban area were more active young people who might like to be athletes and yet were discouraged about that activity as being an avenue to success, had a lower IQ than their sibling, had low loyalty to parents and rejected their mother's values. These children were likely to be the nonachieving child in the family.

The teen-ager who preferred a social environment in which to study was a young person who had conflict with his mother and believed that his mother was more authoritarian than did the sib. R's who liked this social environment were more likely to be girls who were the underachieving child.

The child who liked to spend more time reading then his sibling was one with a higher self esteem, had a father who had high expectations for his further education, and was likely to have not attended nursery school while the sibling did. This syndrome was related to the achieving child in the family.

URBAN AREA:
SHARED VARIANCE AMONG THE FOUR DIMENSIONS

To determine which factor provided the best explanations for the differential achievement of adolescent siblings in an urban setting, all the indicators which were significant in the demographic, family, self, and school dimensions were placed in a multiple regression. Table 1 presents the results. Twenty three of the thirty five indicators accounted for 49% of the variance which was 92% of the variance accounted for by the 35 variables. Of these twenty three variables, eight were demographic, two were family, seven were self and six were school, as shown in the table.

Table 90

Number of Indicators Selected by Step-Wise Regression From Each of the Four Dimensions.

Area	Variables in Regression # Entered	 # Significant
Demography	8	8
Family	8	2
Self	9	7
School	10	6
total	35	23

The twenty three significant indicators are grouped according to the four dimensions, and the step at which the variable entered the regression equation is shown.

Table 91

Step Number and Beta Weights for Significant Indicators from Four Sets for the Urban Area.

DEMOGRAPHIC VARIABLES

Step #	Item #	Variable	Beta Wt.
1.	170	IQ score	.23
2.	11	Sex by achievement	.23

6.	144	Jewish or other	-.12
14.	141	Catholic	-.16
15.	139	Race: Black	-.12
17.	66	Father living	-.21
18.	109	Mother's education	.12
22.	467	Father employed	.08
FAMILY VARIABLES			
4.	88	Mother-child conflict	.11
9.	446	Authoritarian, pressuring mother for R minus authoritarian pressuring mother for sib	-.18
SELF VARIABLES			
5.	157	Adult or teacher chosen as significant mother	-.17
10.	207	Inner-directedness as an ideal self	.25
16.	316	Conformity to society's values of success	.11
19.	307	Marketing personality gets one ahead in life	.14
20.	192	Overall anomie score	-.17
21.	199	Inner-directed orientation of self	-.16
23.	128	Amount of talking with teachers and other adults	.13
SCHOOL VARIABLES			
3.	340	Positive teacher relationships	.05
7.	62	Total peer help with homework	-.15
8.	21	Frequency of studying at home	.09
11.	331	Prior interests in subject influences learning	-.21
12.	39	R's educational aspirations	-.28
13.	111	Difference between father's educational aspirations for R & R's educational aspirations	-.14

These variables, their direction, and how they related to other variables in the same area for the urban sample have already been discussed. However, how they relate to variables in other areas should provide further insights into why siblings from the same family and ghetto environment take that first step out of poverty by doing well in school while others do not.

II. The Interrelationship of Significant Demographic, Family, Self, and School Indicators for the Urban Sample

Demography

The following is a discussion of the significant family, self, and school correlates of the demographic variables for the urban sample. The table presents the correlations. Included are only those demographic variables with correlates from the other areas.

Table 92

Significant Correlations Between Demographic and Family, Self, and School Variables for the Urban Sample.

#	Demographic Indicator		Correlation		
		# Correlate	Family	Self	School
170	IQ score (b = .23)				
	82	Hours a day spent doing homework			.22
	128	Amount of talk with teachers and other adults		.17	
11	Sex by achievement (b = -.23)				
	29	Total peer help with homework			.21
	100	Sibling-R interaction	.20		
	322	Preferred mode of learning: teacher and discussion			.19
	319	Conformity to adults		.17	
144	Jewish or other (b = -.12)				
	316	Conformity to society's values of success		.23	
	88	Mother-child conflict	-.20		
	388	Pressuring mother	-.18		
	29	Total peer help with homework			-.17
139	Being Black (b = -.12)				
	409	Child power of R in the family	-.18		
	149	Mother chosen as significant other		.17	
66	Father living (b = -.21)				
	29	Total peer help with homework			.23

	39	How far expect to go in school			-.17
109		Mother's education (b = .12)			
	199	Total inner-directed orientation of actual self		-.21	
	149	Mother chosen as significant other		-.17	
467		Father employed (b = .08)			
	442	Warm, democratic mother for R minus warm, democratic mother for sib	.25		
	39	How far expect to go in school			-.23
	128	Total talk with teachers and other adults		-.22	
		total	5	7	7

There were five significant intercorrelations of demographic variables with family, seven with self, and seven with school.

Adolescents who had high IQ scores were very school orientated. They did well in school, spent many hours a day on homework and frequently talked to teachers and other adults. Expectedly, higher achieving siblings had higher IQ scores and were more school oriented.

Higher achieving siblings who were also females, received good grades in school and interacted with everyone - peers, siblings, and adults. For early-adolescent girls, doing homework together with friends is a form of social interaction. They interacted with siblings by discussing problems either of them had, playing games or sports together, working around the house together, having the same friends, helping each other with homework, and arguing with each other. Their interaction with adults was seen in their conformity to adults and preferences for instructional approaches where adults were in control, and involved teacher-student interaction.

Adolescents who were Jewish or some religion other than Catholic or Protestant, appeared to be more mother oriented than peer oriented. They conformed to society's values of success, did not have pressuring mothers and did not fight with their mothers. In addition, peers did not help them with their homework.

Being Catholic did not correlate significantly with any family, self, and school variables.

Adolescents who were black were strongly controlled by their parents. They made few of their own decisions. Rather, parents made the decisions for them. However, this lack of child power in some ghetto families appeared to have some positive effects. The black adolescent chose his mother as the most significant person in his life.

Urban students whose fathers were living were turned against school. They did not expect to go far in school and received much help from peers on homework. As discussed previously, peer help on homework is an index of academic dependence on peers. Adolescents immersed in the youth culture were generally alienated from school. This is enhanced by the fact that fathers in a ghetto who were living were also often absent from home. This could further push adolescents into the street culture and away from school.

Achieving siblings whose mothers had gone far in school were less inner-directed. They chose to do things with others rather than be alone; they tried to do better than others; and they were willing to do as grownups wanted. In addition, mothers were not chosen as the most significant person in their lives.

Achieving adolescents whose fathers were working, perceived their mothers as being warmer and more democratic with them than their brother or sister in the study. As a result they did not need emotional support from others as witnessed by their less frequent talk with teachers and other adults.

A warm mother, coupled with a father who was working and therefore probably present to counteract the negative influences of the street life, resulted in families where siblings were dissimilar in school achievement. This indicates that some siblings from this type of family might well be receiving good grades in school.

Family

The following is a discussion of the significant demographic, self and school correlates of the family variables for the urban sample. The significant correlations are shown in the table.

Table 93

Significant Correlations Between Family and Demographic, Self, and School Variables for the Urban Sample.

# Family Indicator	# Correlate	Correlation		
		Demographic	Self	School
446 Authoritarian, pressuring mother for R minus authoritarian, pressuring mother for sib (b = -.18)				
	75 Time spent taking part in social interaction			+.23
88 Total mother-child conflict (b = .11)				
	144 Jewish or other	-.20		
	39 How far R expects to go in school			-.19
	331 Prior interests influence learning			-.18
	Totals	1	0	3

There were few intercorrelations between significant family variables and others - only one with demography and three with school in this urban area.

Adolescents who frequently fought with their mothers were unlikely to be Jewish or "other" religion (more apt to be Protestant, Catholic,or "no religion") These teens did not plan to go as far in school as the sibling said he wanted to,and prior interests in subject did not influence their achievement.

Taken from the point of view of the child who was not doing as well in school as the sibling, this child felt that the mother was not as interested in him or she would be in conflict with him and pressure more often. He compensated for this lower interest by stating that he wanted to go farther in school. His real interest in school however, was exemplified by his statement that he did not do well in a subject even if he had a prior interest in it. It was almost as if he were daring the teacher to teach him. Children with this constellation of low maternal interest, higher school aspirations,and nonsituational motivation, did not do as well in school as did the sibling who felt that mother cared, had lower (more realistic) aspirations for school and was open to being motivated in learning a topic.

The sibling who perceived the mother as more authoritarian and pressuring than with the sibling reflected sibling rivalry and spent more time socializing.with their peers as a way to escape from home. There was no association with parental warmth. These adolescents were the lower achieving siblings. Apparently, in some ghetto homes perceiving the mother as favoring the sibling had a negative effect upon achievement, while conflict with the mother without the element of sibling rivalry was positive for achievement.

## Self

The following is a discussion of the significant demographic, family, and school correlates of the self variables for the urban sample. The correlations are shown in the next table.

Table 94

Significant Correlations Between Self and Demographic, Family, and School Variables for the Urban Sample.

# Self Indicator # Correlate	Correlation		
	Demographic	Family	School
157 Adult or teacher chosen as significant other (b = -.17)			
340 Positive teacher relationships			.18

207	Total inner-directedness as an ideal self (b = .25)			
388	Pressuring mother		-.22	
316	Conformity to society's values of success (b = .11)			
144	Jewish or other	.23		
82	Hours a day spent doing homework			.20
388	Pressuring mother		.20	
340	Positive teacher relationships			.17
307	Marketing Personality gets one ahead in life (b = .14)			
114	Difference between father's educational aspirations for R and R's educational aspirations			-.23
192	Overall anomie score (b = -.17)			
442	Warm, democratic mother for R minus for sib		.26	
388	Pressuring mother		-.25	
364	Active sociability in school			-.21
75	Time spent taking part in social action			-.21
430	Pressuring father		-.19	
39	How far expect to go in school			-.18
322	Preferred mode of learning, teacher and discussion			-.17
199	Inner-directed orientation for self (b = -.16)			
109	Mother's education	-.21		
21	Frequency of studying at home			-.18
128	Amount of talk with teachers and other adults (b = .13)			
100	Total sibling-R interaction		.31	
340	Positive teacher relationships			.30
39	How far expect to go in school			.29
82	Hours a day spent doing homework			.25
467	Father employed	-.22		
442	Warm, democratic mother for R minus warm, democratic mother for sib		+.21	
322	Preferred mode of learning, teacher and discussion			.21
	total	3	7	13

The self variable had a large number of intercorrelations with other sets - three with demography, seven with family, and thirteen with school.

Siblings who chose a teacher or another adult as a significant person in their lives had positive relationships with their teachers. That is, they perceived them as warm and understanding. However, in this urban area, students who had positive teacher relationships and also chose a teacher as the most understanding person in their lives, were not receiving as good grades as their sibling. Perhaps these students needed a structuring person, especially if they were not getting this control at home, to further combat the negative forces in the urban, central city setting.

Adolescents who wished they were inner-directed did not have pressuring mothers forcing them to conform and do better in school. These were characteristic of the higher achieving sibling.

Students who conformed to society's values of success were most apt to be Jewish or "other" religion rather than Catholic or Protestant. These teens spent more hours a day doing homework and believed hard work was the way to get ahead in life. Their mothers exerted pressure on them to do well in school, and emotional support was received from teachers, as evidenced by their positive teacher relationships. This combination of control and understanding from different adults apparently paid off in higher achievement and in a more socialized child.

Adolescents who believed having a marketing personality was the way to get ahead in life, had higher educational aspirations for themselves than their fathers had, and were the higher achieving sibling. At first glance, this seems contradictory. Believing in the marketing personality is believing that one gets ahead in life by being pleasant and likable rather than through working hard. Perhaps these adolescents were reiterating a value they often heard from the father. Manipulation of others may be quite functional in the urban environment.

Adolescents who exhibited anomie perceived their mother as being less warm and democratic with them than with their sibling. They perceived both the father and mother as being less pressuring. In a ghetto setting, this lack of any adult control could make adolescents feel no one cares and could explain their low grade point average and alienation from school, adults, and even friends. They did not take part in school activities and did not expect to go far in school. They did not like class discussions, lectures, demonstrations, or working alone with the teacher, indicating a further alienation from school and adults. They did not even spend time with friends. These adolescents who felt very much alone in the world were the lower achieving sibling.

Students who were inner-directed had mothers with little education and did not study at home frequently. The lower achieving sibling was more like this than his higher achieving sibling.

Students who more frequently talked to teachers and other adults were more intelligent students who had positive attitudes toward teachers and school. They had good relationships with their teachers, and preferred teaching methods where adults were in control. They did their homework and expected to go far in school. Their family life was perceived as involving interaction with the siblings and they felt more support from the mother and father.

In summary, adolescents who talked to teachers and adults had good relationships with teachers and positive attitudes toward teachers and school. They interacted with siblings and found support and identification at school. They were more likely to be the higher achieving children.

School

The following is a discussion of the significant demographic, family, and self correlates of the school variables for the urban sample. Table 95 presents the correlations.

Table 95

Significant Correlations Between School and Demographic, Family, and Self Variables for the Urban Sample.

# School Indicator	# Correlate	Correlations		
		Demographic	Family	Self
340	Positive teacher relationships (b = .05)			
	128 Amount of talk with teachers and other adults			.30
	100 Amount of sibling-R interaction		.27	
	319 Conformity to adults			.24
	149 Mother chosen as significant other			.23
	157 Adult or teacher chosen as significant other			.18
	316 Conformity to society's values of success			.17
	409 Child power of R in family		.17	
62	Total peer help with homework (b = -.15)			
	100 Total sibling-R interaction		.33	
	66 Father living	.23		
	11 Sex by achievement	.21		
	144 Jewish or "other" religion	-.17		

21	Frequency study at home (b = .09)			
100	Total sibling-R interaction		.21	
319	Conformity to adults			.20
388	Pressuring mother		.9	
199	Inner-directed self			-.18
331	Prior interests influences learning (b = -.21)			
88	Mother-child conflict		-.18	
39	How far R expects to go in school (b = -.28)			
128	Total talk with teachers and other adults			.29
467	Father employed	-.23		
88	Mother-child conflict		-.19	
19	Overall anomie score			-.18
66	Father living	-.17		
100	Total sibling-R interaction		.17	
442	Warm, democratic mother for R minus warm, democratic mother for sib		.17	
111	Difference between father's educational aspirations for R and R's educational aspirations (b = -.28)			
307	Marketing personality gets one ahead in life			-.23

There were many significant intercorrelations between the school variables and the other sets: five with demography, nine with family and ten with self. As expected, the demographic area had the least, with family and self having more.

Adolescents who had positive relationships with their teachers were highly adult oriented as evidenced by their conformity to adults, conformity to society's values of success, their choosing mother, teacher, or other adult as the most significant person in their lives and talking frequently with these persons. Regardless of this adult orientation, they were permitted to make their own decisions and interacted with their siblings. These characteristics were most often found in higher achieving siblings.

Adolescents who received much help from peers on homework were not Jewish or "other" religion, interacted with siblings, and were more likely female with female siblings. Their sex explains why these variables interact. Doing homework with friends is a form of social interaction for girls more than boys at this age. Being female with a sister also explains their high sibling interaction. In a center-city home, girls are expected to help around the house. Most likely these chores were done together. In addition, these females were likely to have living fathers. Peer orientation was not functional for school achievement in the urban setting even for getting help with homework.

Students who frequently studied at home had pressuring mothers pushing them to do well in school. They conformed to adults, interacted with siblings, and were not inner directed. These characteristics were found in higher achieving siblings.

Adolescents who were only inspired to learn in school if they had prior interests in the subject did not fight with their mothers very often and were lower achieving than their sibling. Once again, mothers were shown to be needed to push and control, thus providing the impetus to learn in school and combat the negative forces of street life.

Siblings who expected to go far in school often talked to teachers and interacted with siblings, as well. They did not fight with their mothers and felt she was warmer and more democratic with them than with the sibling. They expressed a desire to be like those people they felt were successful. Their positive relationships with teachers explained their desire to go far in school.

Siblings with no father living or not employed were likely to say they wanted to go farther in school. These children may have had unrealistic school aspirations since they were not doing as well in school, or they were giving the expected or self aggrandizing answers. The absence of maternal conflict coupled with a feeling of being accepted by the mother with no father present was not functional. The teacher or other adult was not providing a significant enough counterforce of pressure on the child to do well. Love was not enough.

Adolescents who felt their fathers had higher educational aspirations for them than they themselves had, did not believe the marketing personality leads to success. Education or being likable and pleasant were not the answers for these lower achieving siblings. Father pressure without warmth elsewhere did not work.

CHAPTER VI

SUMMARY AND CONCLUSIONS

SUMMARY OF PURPOSES AND METHOD

The purpose of the study was to explore the factors related to the differences in academic achievement between two children, adjacent in age, from the same family who went to the same junior high school. The dependent variable of the study was differences in grade point average between the two children. The independent variables were grouped into four sets; demographic variables; family relationships; self concept,including relationships with significant others; and attitudes toward school, including relationships with peers.

Data were gathered from 846 children from three geographic areas. The rural sample was drawn from 45 schools in West Virginia, the rurban sample was drawn from 11 schools in small to medium sized towns in Upstate New York, and the urban sample was drawn from 4 center-city Syracuse junior high schools which all served the same high school.

Data were gathered by means of personal interviews with a precoded form. Data were also gathered from the schools about school achievement and intelligence. Permission was obtained from the paretns and the children were each paid $2.50 for the one and one half hour interviews. Interviews took place in a neutral place, not in the school, at home, or at the university in order to minimize the influence of the setting on the response.

Several questions about the logic of the design of the study were first answered from the data. It was found that there was enough variability in the dependent variable (grade point average differences between the two children in the family) and that there was enough variaance accounted for by the various independent variables to warrant further study. The three geographic areas were sufficiently different from each other to make it necessary to consider the areas separately rather than together. It was also found that the four groupings of independent variables each accounted for sufficient variance to continue all four as separate dimensions.

Three theoretical models were proposed to explain the relationship of the independent and dependent variables. Data from the partitioning of variance procedure gave most support for the differentiated-interactive model.

By means of stepwise regressions for each dimension of independent variables,(demography, family, self and school) the most significant variables in each geographical area were selected and desingated "indicator variables". The correlates of these were examined to determine underlying factors within the dimension which the indicators were representing. Rural, rurban and urban areas were compared to determine if the same underlying factors were accounting for differences between children. Considerable similarities were found although some differences in sign still made it necessary to consider the areas as different.

The "indicators" from each dimension were then fed into another step-wise regression for their particular geographic area. The pattern of correlations with variables from other dimensions were examined for further insights about connections among the four dimensions. The data derived from the two sets of regressions --within each dimension and across dimensions -- were brought together and added to other data for the final summaries of the areas.

SUMMARY CHARACTERISTICS OF THE SAMPLES IN THREE AREAS

The rural area was the lowest average social class, had children who were both younger and older in the junior high school, were more likely to be white protestants and to have the family broken by the death of the father rather than divorce or separation.

The rurban area was characterized by having the highest social class with the mother having more education and more likely to be employed. The highest proportion of Catholics were in this area.

The urban area had a much highest proportion of blacks, larger families, more school dropouts and a larger proportion of families broken by separation or divorce.

Each area tends to represent the type of family which is characteristic of its area.

SUMMARY OF THE RURAL AREA

The rural area has been shown to be a more depressed area than the other two, and therefore greatest interest lies in trying to find out the conditions which lead to higher level of success in school within the family.

The hypothesis of the study was that the demographic factors set the stage for the child functioning, and that the conditions within the family, the self factors, add the way the school is perceived and reacts to the child are all to some extent set by those demographic factors. It was to be expected that demographic factors would be correlated with factors from other sets, but that performance or attitudes in the other areas were less apt to modify the demographic factors.

The two major demographic indicators accounting for differences were, first IQ, which is to a major extent a factor of inborn ability (although the degree is debatable), and second, social class with all its ramifications.

It is seen that IQ was still the first predictor of differences in achievement between the two children. A child who was brighter did better in school. In this area, the child who was able to attend nursery school was more apt to be the higher achiever, as was the child whose mother was at home more during the time the child was young and in school. Both of these items show that additional stimulation, in an otherwise nonstimulating environment was helpful for a child's later school achievement.

Many of the demographic variables were nondifference scores which indicated the social class level of the family, the more education the mother had, and the more educational things there were in the home. The higher the social class under these cimcumstances the children were apt to differ in their school achievement and one might hypothesize, the more apt they were to function according to their IQ's. On the other hand, the lower the social class, the fewer the rooms per person and the more children there were living at home, the more likely the children were to be similar in their school achievement.

In the lower SEI homes there was more homogenization of the children so that the abilities of a child were not recognized.

Under certain conditions, however, lower class children did differ. A positive weight for number of dropouts showed that among families with more dropouts there were more differences between the child. This meant that where there was a history of children leaving school, some children did more poorly than would be expec ted. The number of dropouts was significantly correlated with SEI, and also with larger families, showing that when there were many children in the family there was liable to be less income and more dropouts. In families where there were more dropouts, the achieving child was more apt to take more responsibility for helping around the home. This indicated a more conforming child, and yet it would be expected that if a child spent too much time around the house doing chores and helping with younger children it might interfere with school work. Even an achieving child, under conditions of too many children and need for extra helping hands at home, might become a dropout if that were the acceptable pattern in a home.

Extra stimulation in the home in the early years of the child, as exemplified by attendance at nursery school when a sibling did not, was related to better achievement and also to a child feeling better about himself. It would seem that these two outcomes were indeed the desired ones from a program such as Head Start.

The child who had the advantage of nursery school attendance also reported himself to be a better worker than did the sibling and was more apt to have a library card. It was surprising to find that this child, who was apt to be the one doing better in school, also had a more negative feeling toward school and did not value education as much. Having a library card might be an alternative mode of education and a child who was reading and learning on his own, might be one who found the school not stimulating enough. More children with early stimulation might force the schools to become more stimulating, which might be positive in this area.

In the rural area, women with more education were those who were more apt to get a child to nursery school, and to have their children be achievers. They were more apt to want their high IQ child to have more education, thus recognizing the abilities of a child. The great importance in this area of a mother's education points up the need for strenuous efforts to keep girls in school and give them the advantages which will in turn, help their own children. Perhaps a strong program of mother education would be even more immediate in its effect.

The hypothesis of this study was that the demographic variables would set the stage for the child's functioning but that the family, self and school variables would interact to flesh out a child's self concept and academic coping behavior.

It appears as though this pattern of relationships may be represented in the rural area. The strong differential impact of two social classes has been shown in the first part. In this next part, different types of children will be indicated with the interactive relationships of family, self and school attached to each one.

The children who were doing better in school than the sibling, were those who were related to their environment but not overly conforming to it. They were taking steps toward becoming more independent from the family without losing contact with the family. There were oriented to peers and had a significant other who meant something to them.

In the chapter on the Family, having a pressuring father was shown to be associated with a warm mother, rules set by parents and high aspirations for the child by the father. This syndrome was renamed, Parents strict but warm and was positively related to school achievement. It can be thought of as standing for this whole syndrome of effective family relationships. Within these families, mothers had higher aspirations for the achiever, perhaps realistically assessing R's chances of succeeding, and the child talked frequently with his siblings, thus indicating a great deal of family interaction.

With this constellation for the higher achieving child, the nonachieving child saw things in the reverse direction. The nonachieving child saw the parents as more pressuring, saw himself as less active, and thought that the family was less permissive than did the achiever. The parents set more rules for the child who was not achieving and also helped more with homework to help him achieve better. These less achieving children, in the rural area, tended to be the younger child in the family, who may "catch on" to how to study, since they were getting so much help.

High self esteem was correlated at the .01 level with variables one would expect - having less anomie and a feeling that hard work paid off better than trying to get others to like you. But these good feelings surprisingly did not result in the child's getting better grades.

The information available in order to interpret this finding is slender. Having a high self esteem was the first indicator in the rural area but had no correlations with any indicators from the other three dimensions significant at the .01 level. Since this was such an important indicator those correlations significant at the.10 level were included. The high self esteem child perceived the self also as being related to the world around him (r = .20) and conforming to adults (r = .18). These children were the one child who attended nursery school (r = .14) and who did not study frequently at school (r = -.16). The picture emerging is of a child who is socially and personally integrated. He wants to please others and thinks well of himself. He has an ideology of hard work as a way to success but does not study. He rates himself as being above average on a number of traits but does not perform. The correlation of this set of traits with IQ is non significant (r = .03) so there is no evidence that this self esteem on the one hand or his pon performance was associated with his ability to perform and lends further credence to the hypothesis of a personality typelogy explanation.

Likewise there was no direct correlation with any of the social class or family relation indicators. There was however, one suggested possibility and that was a correlation of .21 was the self factor, inner directedness of most significant other. This indicator represented the mother and sibling being chosen as a significant other and the child wanting to be conforming to adults.

In summary, this high esteem for self child seemed to be well integrated into his world but had not learned to work. There was a good deal of emphasis on his having these good feelings but not enough in his being assertive and willing to do the essential things neccessary to produce. Such personalities may be effective in the non school world.

The answer is the low self esteem child who feels that getting others to like you is better than working hard. On the other hand, he does study at school is less well integrated into the system by being less conforming to adults and feeling less that he belongs. This child because of his deviance and willingness to get the task done, does better in school.'

One could say that a child who felt responsible to his family in the rural area, and who was not doing well in school, got a job as he got older and then did even less well in school. This would appear to be the child who was going to be a dropout. The additional income from the child's earnings would be a short term help to the family, thus showing the child's responsibility to the family. Number of dropouts was not directly related to teen-agers having jobs, but was related indirectly through SEI, thus making it more likely that teens with jobs who were not doing well in school were more likely to be lower SEI children.

There were strong indications that there were authoritarian types of families. A pressuring father, included in a previous family type of "Parents strict but warm", was also related to another syndrome with included conflict with the mother, a pressuring mother as well as father, a child who believed that a working mother was bad for children and strict rules set in the family. The feeling which this family constellation conveys is one of family hostility, with an authoritarian father leading to the authoritarian personality syndrome. Throughout the rural section there appeared to be an undercurrent of teen-agers who were conforming, and likely to be a "good child" but this over conforming behavior did not seem to pay off in achievement. Their attitudes seemed unrealistic.

When asked questions about their functioning, they were too threatened to answer with their true feelings and instead gave socially approved positive answers: "School is fine, teachers are loving and warm, parents are loving." These might be children who were overcome by adversity, defeated by poverty and adverse home situations. Their father was strict and obedience required. Their school performance was such that there was little hope of achievement, but still they could not express their real feelings about any of this. They had been trained to be positive toward strangers and sensing the "right" answers, were eager to please the interviewer in spite of his statements about being honest and truthful.

The interrelationships indicated in this summary have shown alternative types of family relationships found in high and low SEI families. It appears that when the parents were perceived as loving, the children tended to achieve.

Among the lower SEI groups the children's self and school attitudes are interrelated. Clues for success in this culture may be to increase the warmth of families to make it possible for children to be realistic. Overconformity does not seem to be too functional in the immediate situation, and has even less prospect for the future. Children to succeed being nice, friendly, positive and passive may make for adaptation but if they move out in the school or in the larger conpetence world these behaviors may not be as functional.

The authoritarian personality syndrome was more likely a lower SEI phenomenon as determined by a relationship through low valuing of education related to father leaving, to various indicators of lower SEI such as larger families and fewer rooms per person. For children with a father living, not necessarily present, there were more differences between the children in feeling secure and able to get along with people.

SUMMARY OF THE RURBAN AREA

The rurban area, as has been described, was considerably higher in social class and in educational expectation than the other two areas. Although there were lower class families included in the study, the press of the climate of the schools and the families was toward achievement. The schools seemed aware of children's potential and IQ was related to achievement.

Among higher level families, the differences between two children were more likely to be accounted for by the fact that one was doing less well than expected. Certain factors associated with minority status also affected differences between children, with some children doing less well while another was able to succeed in the general educational milieu of the area.

It will be recalled that demographic indicators accounted for 38% of the total variance in this area. Factors which made for greater differences between the two children were: being black or "no religion",or being a lower social class as shown by having fewer educational things in the home and by crowding in the home. Being black and having a larger family meant that the two children were closer in their achievement level and were less able to be differentiated so one child could begin to move out. IQ differences between the two children significantly differentiated them in their level of academic adaptation.

There was the interesting finding that if a child went to nursery school and the sibling did not, the child who went did less well in school. This phenomenon was explained by the data by the attendor being a child with more problems who was sent to a nursery school in the hope that he would improve.

A paternal-centered family, but with the mother still quite strong, seemed to be functional for achievement. A child who did not perceive himself as getting as much affection in the home as did the sib, and who saw the family as negatively valued, was apt to do less well in school. Sibling rivalry and mother-child conflict were negative. Families where the positive effect of the father was missing were less apt to have achieving children.

In this area, the child who felt that he could make decisions regarding his own life was the one who did better in school, but the more he saw his mother pressuring him beyond her pressure for the sib, the less well he did.

Children who were achieving were those who expected to go on for further schooling and who enjoyed reading. The ways not to succeed in this environment were to spend too much time with peers and to feel that school was not worth while. Teenagers with high self esteem who accepted their mother's values did better.

Negative attitudes toward school in this environment were associated with being an active person who rejected mother's values and did not feel loyal to parents, but also had a lower IQ than the sib. In other words, those who were less able to compete in this highly competitive academic environment, reacted by rejecting school and parents. They had a peer culture which reinforced their negative school attitudes.

The socialization required for school achievement was fostered by having a close relationship to an adult, especially the mother, and if a peer was chosen it meant the mother was being displaced. Perhaps at an older age, a peer orientation in this area may be more functional for academic achievement. In this area, the family was a quite strong and effective system. The junior high school child who had a family that stood behind him, that did not bind him or give him too much freedom, did better in school than the child who was moving to significant others outside of the family.

SUMMARY OF THE URBAN AREA

Through the accident of birth individuals are placed in families and social environments that predispose them to do well or poorly in school. In an urban center-city setting, if a child is born with a high IQ, has a father who is present and working and a mother with more education than the majority of poor women, chances are he will do well in school and take that first step out of poverty. However, if he is born into a minority group and has no father present, he most likely will continue in the steps of his parents. Of course, it is not these characteristics per se, that cause achievement or non-achievement in school; but the family life, child rearing practices, self concepts, aspirations, schools, teacher relationships and peer relationships associated with each of these that exert the major influences. It is to these factors that educators, sociologist, psychologists and reformers can address themselves to assure adolescents better lives.

By examining the family life, school life, and self concepts of poor adolescent siblings in junior high school some answers are provided to the question why children from the same family and school environment perform differentially in school. Hopefully, officials can use this information to develop programs where all poor children can be assured future success.

In the urban environment mothers played a central role. Through her relationship with her children she instilled a desire to do poorly or well in school. However, the character of this relationship differed with the family structure.

In homes where the father was employed and therefore present (r = .69), higher achieving siblings perceived their mothers as being more warm and democratic with them than their sibling. Mothers were described as being there when needed, as explaining why she wanted R to do certain things and as making it known the type of behavior she expects. In father present homes mother provided the emotional support which adolescents needed to counteract paternal pressure and authority.

In contrast, the higher achieving siblings in father absent homes felt their mothers were more authoritarian and pressuring with them than with their lower achieving sibling. These mothers punished by not letting R do what he wanted; she nagged and kept after R to do well in school. In addition, she was perceived as being strict and fought with R about the time to come in at night, friends, grades in school, dropping out of school, and helping around the house. Studying and very limited socializing were encouraged by her. It appears that in father absent homes, mothers must assume the task-oriented role traditionally assigned the father to combat the negative influence to ghetto street life.

Additional family characteristics higher achieving siblings reported were high sibling interaction and high child power in family. Siblings discuss mutual problems, play games or sports together, work around the house together, have the same friends, help each other with homework and even argue. This high sibling interaction also suggests an absence of sibling rivalry. In addition, these homes were perceived as child centered. The number and definiteness of rules are limited and adolescents are permitted to make their own decisions. However, these family characteristics only have a positive effect on achievement when the mother-child relationship is appropriate for the type of family structure.

In this urban area, teachers also exert major influence over students. Higher achieving siblings who were receiving authority and pressure at home looked to teachers for the emotional support they needed. They talked to teachers, discussing problems and felt teachers understood them and instructed well. In addition, they felt they learned best with instructional approaches where the teacher was in control: lectures, demonstrations, and working alone with the teacher. However, naming a teacher as the most significant person and having positive relationships with them did not necessarily result in higher achievement if one does not have the needed relationship of structure with parents at home.

Having the needed home life and good teacher relationships all combined to form certain personality characteristics in higher achieving siblings: conformity, an active orientation to life, and a desire to be more inner-directed. Adolescents receiving better grades in school than their sibling conformed to society's values of success. They tried to do better than others and felt hard work was the best way to get ahead in life. They were respectful of adults and willing to do as grownups wanted. Their active orientation was seen in their choosing to do things with others rather than be alone, trying to do better than others, having a mind of their own when with friends, likelihood of trying out something new and different, and willing to take a stand on something they thought important. In addition, they wanted to go far in school and felt they could make it by having a good personal relationship with others.

If adolescents did not receive the proper amount of control and understanding from different adults, different personality characteristics result which hindered school achievement: inner-directed orientation, anomie, an unrealistic view of self and future, and peer orientation. Lower achieving siblings kept their feelings to themselves, did not necessarily want to be like those people they felt would succeed in life, and had educational aspirations unrelated to their actual achievement in school. Finally, they had strong connections with the ghetto youth culture which was anti-education. They were academically dependent on peers and spent a great deal of time socializing with them.

In summary, the primary factor that permitted some children to break away from the ghetto mold was a balance of authority, pressure, and strictness from an adult to combat the negative forces associated with urban life, and warmth and understanding from another adult. In some families fathers provided the former and the mothers the latter. However, in father-absent homes, mothers must be strong and strict, and other adults, such as teachers, must provide the understanding. Other differentiating factors within the home, school, and self result because of these and reinforce their positive or negative effect, as the case may be.

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

The conclusions regarding the research design will be presented first, followed by the conclusions about theory and the substantive findings.

CONCLUSIONS ABOUT RESEARCH DESIGN

1. The research method of examining intra-family differences is a feasible one and allows for laboratory-like controls in field research, making for tighter cohort-type studies.

2. The same parents and the same home are clearly different atmospheres for the two siblings. More attention needs to be placed on the home as a differential launching center for the child's education. A number of suggestions are made in the recommendations chapter about how this may be accomplished.

3. Programs for improving educational attainment need to be differentiated by geographic area, suggesting more local planning within the framework of federal guidelines.

4. The partitioning of variance technique has a significant use in educational research.

5. The four dimensions,as indexed and divided into demographic, family, self and school variables, were sufficiently differentiated from each other to be useful in further studies.

6. In the rurban and urban areas,family background factors had the most influence on differential achievement while in the rural area, each of the four dimensions had equal influence.

THEORETICAL AND SUBSTANTIVE CONCLUSIONS

In this research, two main theoretical lines have been followed. The differentiated-interactive model was used to explain the general relationship between the four sets of variables. The second theoretical line, that of G.H. Mead, gave substance to the interpersonal aspect of the theory. Through contacts with significant others, family, teachers and peers, the child develops a sense of self. These self attitudes are related to the child's developing values about the larger society, including those about the school. All of these interacted to have a significant effect on how one child did better in school than did the sibling.

What is lacking is relating this theory more directly to the dependent variable of this study, to determine which type of demographic setting, family relationships, and personality are more functional for producing academic achiev - ment.

Higher social class has been shown to functional for differential achievement of the children. A family with more education, where sufficient room in the home and educational things are provided, and where the parents foster achievement, is functional for allowing children to be at their highest level.

In terms of family relationships, a pattern of high family solidarity as the child percieved it, with rules set but opportunity for a child to make decisions and take responsibility--then it was most functional for that child.

Both of the factors of social class and family relationships are exemplified in the rurban area, where the social class was found to be well above the national average, the educational press in the community and families was high, and where the warm but strict family was found to be functional. Even in the rurban area, less effective functioning of the children was found in those families which did not meet these high standards.

With this pattern being considered the most functional, it can be proposed that what is needed in other areas is countervailing influences which influence the child toward these ideal norms. The school and family must be perceived by the child, or indeed must function, against the negative influences which lead to homogenization within a given culture.

Being in a higher social class family that valued education, not being a member of a minority group, having an intact family without too many children and not living under crowded conditions -- all of these conditions over which the child had little control, predisposed him to being able to do better. However, these more fixed conditions were not the focus of the present study which was interested in how children managed to cope with the environment when it was opposed to the child's opportunity for success.

To the extent that the lower class families can adopt the values associated with the families that have children doing better in school, to that extent will they become a countervailing influence. Some of these ways are to press for better educational opportunities for their children, to have educational things in the home, to developinterests in educational pursuits in the home so that it offers some of the educational infrastructure that helps children do better in school.

The following specific countervailing influences against the prevailing negative forces in each of the three geographical areas were shown to differentiate the two siblings.

1. Mother-child conflict was negative -- except in the urban area where the mother stood for accomplishment and against negative peer influences.

2. Affiliation with family values was positive -- except in the rural area where it led to too much passivity.

3. Definite and strict rules were negative -- except in the urban area where they were countervailing against the general culture.

4. Conformity was negative -- except in the urban area where it represented rejection of the negative influences of the peer culture.

5. The paternal-centered family was functional in the rurban area but not in rural or urban, where if present, it was too strong.

6. Peer relationships were negative -- except in the rural area where they fostered independence. This early independence may or may not be functional for personality growth but was not functional for school achievement in the rurban and urban areas.

7. Academic pressure was negative -- except in the rurban area where it was the norm.

8. Having a high level of self esteem was functional except in the rural area where it may represent either a child gaining this self esteem through channels other than school performance, or it may represent the child who was unrealistic about the self and not able to admit it in front of an interviewer.

9. Positive teacher relationships was functional -- except in the rural area where a child who could criticize was a more effective person.

10. IQ differences were the most significant variable in explaining differences in achievement between siblings -- except in the rurban area where an indicator measuring being a problem child came first. In this area of high academic pressure, socio-emotional variability was crucial.

11. Good study habits and an atmosphere of learning were functional in all three areas but they were manifested differently according to the setting. The urban child who did better in school, studied at home. Doing so kept him from peer influences and solidified his ties with the home. The rural child did better if he studied at school as a way of increasing his differentiation from the family. He showed his interest in learning by having a library card. In the rurban area, the ingredients for success were time spent reading for pleasure and not watching TV,as indicating a strong internal press for learning.

RECOMMENDATIONS

1. The differential functioning of the two children in the same family is a function of forces within the family. More attention should be placed on the family by the schools in order to improve the child's schoolwork. This can be done by having more school-home liaison workers, having teachers visit the home and the family members visit the school; and hiring more professional and para-professional home-school persons.

2. The results of this and other studies about factors related to achievement in the urban setting should be made available to the children as well as parents and teachers.

3. Although this implication follows directly from the last, it deserves special mention. A course of study should be offered, or perhaps be mandatory,which focuses on the knowledge base in the social sciences relating to effective functioning in the school and work world.

4. The influence of peers should be counteracted by isolating these negative influences so they would not be allowed to harm other children. Another alternative is to minimize their influence by grouping children so that only a small number of children with potential negative influence on others are surrounded by a larger number of more positive peers. This is the essence of the integrated school. This integration would not necessarily take place on the basis of race but on the basis of attitude and accomplishment in school.

5. Support should be given to mothers who provide the instrumental function of protecting and pressuring their children. These supports might include reassurance that their behavior in relation to the child is functional to the child's school progress.

6. As an incentive for more mothers to use this method, they should be trained in ways to provide this reinforcement to their children and be given reinforcements themselves, such as being paid according to how well the children did in school, receiving recognition in the community for their work, and given special benefits such as paid vacations, appliances or whatever they would find reinforcing. The mother's function is so crucial that it should not be left to chance.

7. Teachers and other significant adults need to be aware that they may have to be flexible in their relationships with different children. With some they will need to provide the instrumental functions of pressure, control and, if necessary, being tough and in conflict with some children. Schools

without such persons who set standards and insist on performance from the children, may be failing those who do not find this structure at home.

Other children find this structure at home but do not have warmth from an adult to reinforce their progress. Schools need to also provide this for some children. These functions, especially those of support, may be provided elsewhere than in the home or school, but these two agencies are most directly concerned with education.

The inner-city child, however, most of all needs protection from the deleterious effects of that enviroment,and teachers, guidance couselors and other school personnel need to recognize the important part their setting of standards has for the achievement of the child even if the child may not end up liking the teacher at that time in their life. There is evidence from the children who were doing better in school, however, that they interpreted pressure and conflict as meaning that the person, whether teacher or mother, really cared about them.

8. Schools should encourage,and make available to children, ties with adults. These could be adults from the community or from the university if one is available. These adults might provide the structure, support or challenge children lack from the adults in their own lives, and would be a force counter to the peer culture.

9. One thesis done on data from this study (Portnoy 1971) found that there was an interaction between personality typology and preference for type of instruction. This implies that a wider range of alternative learning styles would be functional.

10. In the rural area, where it was found that peers were useful in encouraging independence from the family, the school needs to take responsibility for organizing more opportunities for teens to get together, and parents should be encouraged to see the value of this for their children.

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APPENDIX A

PARTITIONING OF VARIANCE

1. To perform the partitioning, three types of values must be found:
   a. R^2 for each single X and for all possible combinations. This involves:
      (1) 4 single Xs
      (2) 6 sets of combinations of two Xs, i.e. 1+2.
      (3) 4 sets of combinations of three Xs, i.e. 1+2+3, etc.
      (4) 1 combination of all four Xs, called Grand R^2.

   b. U values. These are the unique amount of variance attributable to each X alone.

   c. C values. These are the amounts of variance attributable to the various combinations.

2. R^2 are found by multiple regression. For four Xs there are 15 necessary regressions, as listed above, and as shown in Table 1 with the R^2 values found for the three geographical areas of the present study.

3. U values are found by inserting appropriate R^2 values (from Table 1) into the equations shown under "unique", in Table 2, and performing the necessary subtractions.

4. C values are found by inserting the appropriate R^2 U and C values into the equations under "common", and performing the necessary subtractions. The procedure should be done sequentially, starting at the top and working down in order to have the U and C values available when called for. The results of these subtractions (values for U and C) for the three geographical areas are also shown in Table 2. Table 3 shows the subtractions performed for the rural area.

5. To complete the partitioning, the variance attributable to each of the Xs must be separated from that held in common with other Xs. The procedure is shown in detail for the rural area in Table 4. Values shown in the left column are those found in the computations shown in Table 3.

   Note that negative values small enough to be accounted for by rounding errors are considered zero. The sum of the partitioned variance attributed to the four Xs should equal the Grand R^2.

6. The unique and common variance attributable to any X can be expressed in whole numbers or in percent of total for purposes of comparability.

Table 1

Results of 15 Regression Analyses for Single and Combined Sets of Four Dimensions in Rural, Rurban and Urban Areas

Single and Combined Sets	Rural R^2	Rurban R^2	Urban R^2
X1	.20	.25	.25
X2	.21	.11	.14
X3	.25	.22	.18
X4	.25	.20	.19
1+2	.36	.32	.31
1+3	.39	.38	.38
1+4	.35	.36	.37
2+3	.37	.26	.27
2+4	.37	.25	.28
3+4	.40	.31	.33
1+2+3	.51	.41	.43
1+2+4	.48	.40	.42
1+3+4	.48	.43	.49
2+3+4	.48	.33	.39
1+2+3+4 (Grand R^2)	.57	.46	.52

Independent Variables:
X1 Demography
X2 Family
X3 Self
X4 School

Dependent Variable:
Difference between siblings in Grade Point Average.

Table 2

Determination of Unique and Common Variance for Four Dimensions in Rural, Rurban and Urban Areas

Sets of Dimensions	Rural	Rurban	Urban
Unique:			
UX1 = Grand R^2 $-R^2$2+3+4	9	13	13
UX2 = Grand R^2 $-R^2$1+3+4	9	3	3
UX3 = Grand R^2 $-R^2$1+2+4	9	6	10
UX4 = Grand R^2 $-R^2$1+2+3	6	5	9
Common:			
C1+2 = Grand R^2 $-R^2$3+4 -UX1 -UX2	0*	0	3
C1+3 = Grand R^2 $-R^2$2+4 -UX1 -UX3	2	2	1
C1+4 = Grand R^2 $-R^2$2+3 -UX1 -UX4	5	2	3
C2+3 = Grand R^2 $-R^2$1+4 -UX2 -UX3	4	1	2
C2+4 = Grand R^2 $-R^2$1+3 -UX2 -UX4	3	0	2
C3+4 = Grand R^2 $-R^2$1+2 -UX3 -UX4	6	3	2
C1+2+3 = Grand R^2 $-R^2$X4 -C1+2 -C1+3 -C2+3 -UX1 -UX2 -UX3	0	1	1
C1+2+4 = Grand R^2 $-R^2$X3 -C1+2 -C1+4 -C2+4 -UX1 -UX2 -UX4	0	1	0
C1+3+4 = Grand R^2 $-R^2$X2 -C1+3 -C1+4 -C3+4 -UX1 -UX3 -UX4	0	4	0
C2+3+4 = Grand R^2 $-R^2$X1 -C2+3 -C2+4 -C3+4 _UX2 -UX3 -UX4	0	3	0
C1+2+3+4 = Grand R^2 -UX1 -UX2 -UX3 -UX4 -C1+2 -C1+3 -C1+4 -C2+3 -C2+4 -C3+4 -C1+2+3 -C1+2+4 -C1+3+4 -C2+3+4	4	2	3
Total Unique	33 (58%)	27 (59%)	35 (67%)
Total Common(shared)	24 (42%)	19 (41%)	17 (33%)
Overall Total (unique+shared)	57 (100%)	46 (100%)	52 (100%)

* Minus values converted to 0 (accounted for by rounding errors)

Table 3

Determination of Unique and Common Variance For the Rural Area

R^2	Sets of Dimensions	Computation**
	Unique:	
.20	UX1 = Grand R^2 $-R^2$2+3+4	57 - 48 = 9
.21	UX2 = Grand R^2 $-R^2$1+3+4	57 - 48 = 9
.25	UX3 = Grand R^2 $-R^2$1+2+4	57 - 48 = 9
.25	UX4 = Grand R^2 $-R^2$1+2+3	57 - 51 = 6
	Common:	
.36	C1+2 = Grand R^2 $-R^2$3+4 -UX1 -UX2	57 -.40 -9 -9 = -1 (0)**
.39	C1+3 = Grand R^2 $-R^2$2+4 -UX1 -UX3	57 - 37 -9 -9 = 2
.35	C1+4 = Grand R^2 $-R^2$2+3 -UX1 -UX4	57 - 37 -9 -6 = 5
.37	C2+3 = Grand R^2 $-R^2$1+4 -UX2 -UX3	57 - 35 -9 -9 = 4
.37	C2+4 = Grand R^2 $-R^2$1+3 -UX2 -UX4	57 - 39 -9 -6 = 3
.40	C3+4 = Grand R^2 $-R^2$1+2 -UX3 -UX4	57 -.36 -9 -4 = 6
.51	C1+2+3 = Grand R^2 $-R^2$X4 -C1+2 -C1+3 -C2+3 -UX1 -UX2 -UX3	57 -25 -0 -2 -4 -9 -9 -9 =-1 (0)
.48	C1+2+4 = Grand R^2 $-R^2$X3 -C1+2 -C1+4 -C2+4 -UX1 -UX2 -UX4	57 -25 -0 -5 -3 -9 -9 -6 = 0
.48	C1+3+4 = Grand R^2 $-R^2$X2 -C1+3 -C1+4 -C3+4 -UX1 -UX3 -UX4	57 -21 -2 -5 -6 -9 -9 -6 =-1 (0)
.48	C2+3+4 = Grand R^2 $-R^2$X1 -C2+3 -C2+4 -C3+4 _UX2 -UX3 -UX4	57 -20 -4 -3 -6 -9 -9 -6 = 0
.57	C1+2+3+4 = Grand R^2 -UX1 -UX2 -UX3 -UX4 -C1+2 -C1+3 -C1+4 -C2+3 -C2+4 -C3+4 -C1+2+3 -C1+2+4 -C1+3+4 -C2+3+4	57 -9 -9 -9 -6 -0 -2 -5 -4 -3 -6 -0 -0 -0 -0 = 4

* For clarity of presentation, decinal places were dropped.

** Minus values small enough to be accounted for by rounding errors were changed to zero.

Table 4

Variance Attributable to EAch of Four Dimensions in the Rural Area

Accounted for Variance	Computation	X1 Demog.	X2 Family	X3 Self	X4 School
33	4 Uniques	9	9	9	6
0	$\frac{C1+2}{2}$	0	0	-	-
2	$\frac{C1+3}{2}$	1	-	1	-
5	$\frac{C1+4}{2}$	2.5	-	-	2.5
4	$\frac{C2+3}{2}$	-	2	2	-
3	$\frac{C2+4}{2}$	-	1.5	-	1.5
6	$\frac{C3+4}{2}$	-	-	3	3
0	$\frac{C1+2+3}{3}$	0	0	0	-
0	$\frac{C1+2+4}{3}$	0	0	-	0
0	$\frac{C1+3+4}{3}$	0	-	0	0
0	$\frac{C2+3+4}{3}$	-	0	0	0
4	$\frac{C1+2+3+4}{4}$	1	1	1	1
57	Rural Totals	13.50	13.50	16.00	14.00
46*	Rurban Totals*	17.50	5.67	12.17	10.66
52*	Urban Totals*	17.58	7.59	13.58	13.25

* Computation not shown

APPENDIX B

KEY TO VARIABLES

The variables used in the study are listed here. The number of the variable can be used to get the complete title, the card and column number in the original questionnaire, and the direction and method of coding.

Items marked ND were nondifference scores for a family. All items not marked were difference scores between the two siblings in the same family, with the score of the higher achieving child considered first with his sibling's score subtracted from his.

Certain variable numbers refer to factors, and the title and number of the factor is given here. If further information is desired about a particular factor, the Variable List should be consulted.

Variables

#		questionnaire card/column	title
ND	4	1/7	Father's presence 0 = father absent 1 = father present
	5-6	1/9-10	Age (actual number)
ND	7	1/13	Number of boys
ND	8	1/14	Number of girls
ND	9	1/21	Number of children living at home
ND	10	1/22	Number of dropout siblings
ND	11	1/54	Sex by achievement 0 = higher achiever male, sibling male 1 = higher achiever male, sibling femlae 2 = higher achiever female, sibling male

			3 = higher achiever female, sibling female
ND	12	2/10	Number of hours mother works per week 0 = does not work 1 = 15 hours or less 2 = 16 to 30 hours 3 = 31 to 40 hours 4 = more than 40 hours
	13-14	2/11	Nursery school attendance 0 = did not attend 1 = did attend nursery school
ND	17	2/33	Share a room with others 0 = have room of own 1 = share room with one other 2 = share room with two others 3 = share room with at least three others.
	19-20	2/52	Frequency of studying at school 0 = never 1 = hardly ever 2 = fairly often 3 = very often
	21-22	2/53	Frequency of studying at home (0,1,2,3 coded as above)
	23-24	2/65	Have "most important" thing at home that makes studying easier * (0,1)
	25-26	2/72	Frequency mother helps with homework 0 = never 1 = hardly ever 3 = fairly often 4 = very often
	27-28	2/73	Frequency father helps with homework (0,1,3,4 coded as above)
	29-31	2/75-76	Total help with homework (parents, sibs, friends, other--sum) (0-24)

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* In this case and others where only a (0,1) is indicated, 0 = negative response and 1 = positive response.

32-33	3/14	How often is the "best way to learn" used now is your classes at school? (0,1,3,4 coded as above)
34-36	3/52-3	Total Smith-Mink low dropout proneness
37-38	3/54	Have library card (0,1)
39-40	4/6	R's educational aspirations 0 = stop as soon as able to 1 = does not want to finish h high school 2 = wants to finish high school only 3 = wants to go to technical, nursing, or business school after high school 4 = wants some college training, but less than 4 years 5 = wants to graduate from a 4 year college 6 = wants to do professional or graduate work
41-42	4/30	Satisfaction in the future 0 = rather be 5 years younger 1 = satisfied with present age 2 = rather be 5 years older
43-44	4/31	High self-esteem - personal characteristics (3/71 + 72 + 73 + 74) range: 0 - 8
45-47	4/32-3	Rosenberg low self-esteem (4/8 + 17 - 11 - 14) range: 0-8
52-54	4/37-8	Positive peer orientation to school (4/44 + 46 + 47) range: 0-12
55-57	4/39-40	Negative peer orientation to school (4/45 + 48 + 49) range: 0-12
58-61	4/41-3	Positive minus negative peer orientation to school (4/44 + 46 + 47) - (4/45 + 48 + 49) range: -12 to +12

	62-64	4/54-5	Total peer help with homework (friend, sister or brother) (2/69 + 70 + 71) range: 0-12
ND	65	4/65	Parents 0 = not living 1 = living
ND	66	4/66	Father 0 = not living 1 = living
	67-68	4/69	How often would like to make people laugh at what you do? 0 = much less 1 = a little less 2 = just the same amount I now do 3 = a little more 4 = much more
	69-71	5/20-1	Hours spent in church activities per week
	72-74	5/24-5	Hours spent reading for pleasure per week
	75-77	5/26-7	Hours spent taking part in social action per week
	78-79	5/32	Hours spent watching TV each day
	80-81	5/33	Hours spent playing sports each day
	82-83	5/34	Hours spent doing homework each day
	84-87	5/58-9	Total days absent from school during the year (61,62 + 63,64 + 65,66 + 67,68 + 69,70 + 71, 72 + 73,74) range: 0-99
	88-90	6/33-4	Mother-child conflict (6/67 + 28 + 29 + 30 + 31 + 32) range: 0-24
	91-93	6/40-1	Parents set definite rules (6/35 + 36 + 37 + 38 + 39) range: 0-10
	94-96	6/52-3	Rejection of mother's values

		(6/42 - 4/71) + (6/43 - 4/72) + (6/44 - 4/73) + (6/45 - 4/74) + (6/46 - 4/75) + (6/47 - 4/76) + (6/48 - 5/6) + (6/49 - 5/7) + (6/50 - 5/8) + (6/51 - 5/9) range: 0 to +40. Sum of differences without regard to sign
97-99	6/58-9	"Father-power" in family in relation to mother (6/54 + 55 + 56 + 57) range: 0-16
100-2	6/66-7	Positive sibling interactions (6/60 + 61 + 62 + 63 + 64 + 65) range: 0-24
103-4	6/76	Sibling rivalry (6/73 + 74 + 75) range: 0-9
105-6	7/16	R feels mother favors sib more 0 = never 1 = hardly ever 3 = fairly often 4 = very often
107-8	7/32	Mother's expectation for R's school performance 0 = she doesn't care 1 = doesn't matter as long as I do the best I can 2 = good enough to get by 3 = about average 4 = above the middle of the class 5 = one of the best students in the class
ND 109-10	7/34-5	Mother's education (actual years)
111-13	7/62-3	Father's educational aspirations for R greater then R's (7/66 - 4/6) range: -6 to +6
114-15	7/66	Father's educational aspiration for R 0 = wants R to stop going to school as soon as he can 1 = doesn't care if R finishes High school or not 2 = wants R to finish High school only 3 = wants R to go to technical, nursing, or business

		school after high school 4 = wants R to get some college training, less than 4 years 5 = wants R to graduate from a 4 year college 6 = wants R to go to professional or graduate school after college
116-18	9/23-4	Frequency of talk with mother about school, the war, and personal topics (8/6 + 18 + 30) range: 0-12
119-21	9/25-6	Frequency of talk with father or father figure about school, the war and personal topics (8/7 + 8 + 9 + 19 + 20 + 21 + 31 + 32 + 33) range: 0-36
122-24	9/27-8	Frequency of talk with siblings about school, the war and personal topics (8/10 + 11 + 22 + 23 + 34 + 35) range: 0-24
125-27	9/29-30	Frequency of talk with peers about school, the war and personal topics (8/12 + 13 + 24 + 25 + 36 + 37) range: 0-24--
128-30	9/41-2	Frequency of talk with teachers and other adults about school, the war and personal topics (8/14 + 15 + 16 + 17 + 26 + 27 + 28 + 29 + 38 + 39 + 40 + 41) range: 0-48
131-2	9/43	Significant others influence on R's future. 0 = not at all 1 = a little 3 = fairly much 4 = a lot
133-34	9/44	Signifi
133-34	9/44	Significant others aspirations for R 0 = wants R to stop going to school as soon as he can 1 = doesn't care if R finishes High school or not 2 = wants R to finish High school

		3 = wants R to go to technical, nursing, or business school after High school 4 = wants R to get some college training, but less than 4 years 5 = wants R to graduate from a 4 year college 6 = wants R to go to professional or graduate school after college
135-37	9/45-6	Significant others education (actual number of years)
ND 138	9/52	Race 0 = not white 1 = white
ND 139	9/53	Race 0 = not black 1 = black
ND 140	9/54	Other race 0 = not other 1 = other
ND 141	9/55	Catholic (0,1) 0 = not Catholic 1 = Catholic
ND 142	9/56	Protestant 0 = not Protestant 1 = Protestant
ND 143	9/57	No religion (0,1) 0 = some religion 1 = no religion
ND 144	9/58	Jewish or other (0,1) 0 = not Jewish or other 1 = Jewish or other
145-46	9/64	Total external locus of control (items from Rosenhotter scale) (6/60 + 61 + 62 + 63) range: 0-4
ND 147-48	9/72	Population size of home town 0 = rural, open country 1 = village (less than 2500) 2 = small town (2500-9000) 3 = built-up area outside of small or medium sized city

		(10,000-49,000) 4 = small or medium sized city (10,000-49,000) 5 = built-up area around a large city (50,000) 6 = large city (50,000 or more)
149-50	10/21	Mother chosen as first choice significant other 0 = not chosen 1 = second choice 2 = first choice range: 0-2
151-52	10/22	Father chosen as first choice significant other (0,1,2 coded as above) range: 0-2 (8/64)
153-54	10/23	Sibling chosen as first choice significant other (0,1,2 coded as above) range: 0-2 (8/67 or 8/68)
155-56	10/24	Peer chosen as first choice significant other (0,1,2 coded as above) range: 0-2 (8/69 or 8/70)
157-58	10/25	Adult or teacher chosen as first choice significant other (0,1,2 coded as above) range: 0-2 (8/71, 8/72, 8/73, 8/74)
161-2	10/29	Best solution for poor people's problems 0 = violent action, where there is no other way 1 = organized action like strikes and sit-ins, but no violence 2 = organized action limited to demonstrations, petitions, and voter registration drives 3 = increasing public understanding by educational programs on TV, radio and in newspapers 4 = no special action of any sort is really necessary
163-4	10/30	What the United States should do about Vietnam war 0 = fight until we win the war 1 = continue withdrawing our troops gradually but have no deadline for completing 2 = get men out of Vietnam as soon as possible

165-6	10/31	Eat any food before school (0,1)
167-9	10/70	Grade-point average rounded to 1 decimal place A = 4 B = 3 C = 2 D = 1 F = 0
170-3	10/72-4	IQ score (all test scores standardized to Lorge-Thorndike scores) Original tests Urban-all scores Lorge-Thorndike Rurban-Lorge Thorndike, Kuhlmann-Anderson, Otis, California Test of Mental Maturity, Differential Aptitude, SRA, STS, (standardized Test Service)
174-6	factor	Difference between preferred and potential for: school athlete (3/63 - 3/57) range: -4 to +4 (8)
177-9	factor	Difference between preferred and potential for: student who gets highest marks in school (3/64 - 3/58) range: -4 to +4 (8)
180-2	factor	Difference between preferred and potential for: Person good making things with hands (3/65 - 3/59) range: -4 to +4 (8)
183-5	factor	Difference between preferred and potential for: Person with best sense of humor in school (3/66 - 3/60) range: -4 to +4 (8)
186-8	factor	Difference between preferred and potential for: person who knows what he wants and works steadily (3/67 - 3/61) range: -4 to +4 (8)
189-91	factor	Difference between preferred and potential for: person who knows how to get along with other people (3/68 - 3/62) range: -4 to +4 (8)

192-94	factor	Anomie - difference in preference for type of person and liklihood of success for that type (absolute value of the sum of the 6 scores, 3/64 - 3/58 + 3/65 - 3/59 + 3/66 - 3/60 3/67 - 3/61 + 3/68 - 3/62. range: 0=24
195-8	factor	Active-orientation of self (5/35 + 37 + 38 + 40 + 41 - 36 - 39) range: -8 to +20 (28)
199-202	factor	Inner-directed orientation of self (5/36 + 38 + 40 + 41 - 35 - 37 - 39) range: -12 to +16 (28)
203-6	factor	Active orientation of the ideal self (5/46 + 48 + 49 + 51 + 52 - 47 - 50) range: -8 to +20 (28)
207-10	factor	Inner-directedness of the ideal self (5/47 + 49 + 51 + 52 - 46 - 48 - 50) range: -12 to +16 (28)
211-14	factor	Has a more active self than wants to be (from 195-8 subtract 203-6) range: -16 to + 40 (56)
215-18	factor	Has a more inner directed self than would like to be (from 199-202 subtract 207-10) range: -24 to +32 (56)
219-22	factor	Active orientation of sibling as perceived by R (7/18 + 20 (28)
223-26	factor	Inner-directedness of sibling as perceived by R (7/18 + 20 + 22 + 23 - 17 - 19 - 21) range: -12 to +16 (28)
227-30	factor	R has a more active self from sibling is perceived as having (from 195-8 subtract 219-22) range: -16 to +40 (56)
231-34	factor	R has more inner directed self than sibling is perceived as having (from 199-202 subtract 223-26) range: -24 to +32 (56)
235-38	factor	Active orientation of most significant other as perceived by R (9/18 + 20 + 21 + 22 - 19)

		range: -4 to +16 (20)
239-42	factor	Inner-directedness of most significant other as perceived by R (9/19 + 21 + 22 - 18 - 20) range: -8 to +12 (20)
243-46	factor	Self has more active self than significant other (from 195-8 subtract 235-8) range: -12 to +36 (43)
247-50	factor	R is more inner directed than significant other (from 199-202 subtract 239-42) range: -16 to +32 (48)
251-54	factor	Active orientation of R's 2nd significant other (9/47 + 49 + 50 + 51 - 48) range: -4 to +16 (20)
255-58	factor	Inner-directness of R's second significant other (9/48 + 50 + 51 - 47 - 49) range: -8 to +12 (20)
259-62	factor	R has more active orientation than second most significant other (from 195-8 subtract 251-4) range: -12 to +39 (48)
263-66	factor	Total R's is more inner-directed than second most significant other (from 199-202 subtract 255-8) range: -20 to +38 (48)
267-70	factor	Self # 7: Normlessness
271-73	factor	Self # 8: Subjective socio-economic status
274-76	factor	Self # 9: Self-to-others belongingness
277-79	factor	Self #10: Responsibility for care of own things in home
280-82	factor	Self #11: Responsibility for family chores
283-85	factor	Self #15: Acceptance of rule-breaking by peers

286-88	factor	Self # 16: Personal value, "good child role"
289-91	factor	Self # 17: Personal value, individualism
292-4	factor	Self # 18: Personal value, social conformity
295-7	factor	Self # 19: Mother's value, "good child role" for R'
298-300	factor	Self # 20: Mother's value, individualism for R
301-3	factor	Self # 21: Mother's value, social conformity for R
304-6	factor	Self # 1: Machiavellian personality (knowing the right people) gets one ahead in life
307-9	factor	Self # 2: Marketing personality gets one ahead in life
310-12	factor	Self # 3: Individualism
313-15	factor	Self # 4: Conformity for approval from others
316-18	factor	Self # 5: Conformity to society's values of success
319-21	factor	Self # 6: Conformity to adults
322-24	factor	School # 5: Preferred mode of learning, teacher and class discussions
325-27	factor	School # 6: Preferred mode of learning, other students
328-30	factor	School # 7: Positive situational influences for learning in school
331-33	factor	School # 8: Prior interest an influence for learning in school
334-36	factor	School # 9: Negative situational influences for learning in school
337-39	factor	School # 10: Lack of personal

		involvement is a detraction from learning
340-42	factor	School # 3: Positive teacher relationships
343-45	factor	School # 4: Negative attitude toward personal teacher characteristics
346-48	factor	School # 1: Education is valued
349-51	factor	School # 2: Negative valence toward school
352-54	factor	School # 18: Good academic standing (Smith-Mink)
355-57	factor	School # 19: Participation in school (Smith-Mink)
358-60	factor	School # 20: Activity in organizations outside of school
361-63	factor	School # 21: "Good student" (Smith-Mink)
364-66	factor	School # 17: Active sociability in school
367-69	factor	School # 11: Studying in social environment is desirable
370-72	factor	School # 12: Studying in academic environment is desirable
373-75	factor	School # 13: Academic dependence upon and social need of peers - peer dependent
376-78	factor	School # 14: Group membership and peer approval
379-81	factor	School # 15: Self-directed independence from peers
382-84	factor	Family # 1: Warm democratic mother
385-7	factor	Family # 2: Authoritarian mother
388-90	factor	Family # 3: Pressuring mother

391-93	factor	Family # 6: Warm democratic mother for sibling (short form)
394-94	factor	Family # 7: Authoritarian, pressuring mother for sibling (short form)
397-99	factor	Family # 4: Warm democratic mother for R (short form)
400-2	factor	Family # 5: Authoritarian, pressuring mother for R (short form)
403-5	factor	Family # 15: Loyalty to and empathy with parents
406-8	factor	Family # 16: Have job
409-11	factor	Family # 14: Child power of R in the family v.s. parents
412-14	factor	Family # 13: Father power in the family v.s. mother
415-17	factor	Family # 21: Mother working most of time during R's life
418-20	factor	Family # 19: Mother who works has a positive effect on children
421-23	factor	Family # 20: Mother who works has a negative effect on children
424-26	factor	Family # 8: Warm democratic father
427-29	factor	Family # 9: Authoritarian father
430-32	factor	Family # 10: Pressuring father (end of factors)
433-35	factor	"Sexism" (6/54, 55, 56, 57 -- subtract each raw score from 2, sum the absolute differences, Plus add (-4) to raw score to reverse coding
ND 436-38	factor	Educational things in home (2/36 + 37 + 38 + 39 + 40)

439-41	factor	Mother has higher aspiration for R than R has for self (7/33 - 4/6)
442-45	factor	Mother more warm and democratic for R than for sibling (short forms) (Family # 4 - Family # 6)
446-49	factor	Mother more authoritarian, pressuring for R than for sibling (short forms) (Family # 5 - Family # 7)
450-53	factor	Mother feels R should be more of a "good child" than R feels about self (Self # 19 - Self # 16)
454-57	factor	Mother feels R should be more individualistic than R feels about self (Self # 20 - Self # 17)
458-61	factor	Mother feels R should be more socially conforming than R feels for self (Self # 21 - Self # 18)
ND 462-63	factor	Number of people living in R's home (actual number)
ND 464-66	factor	Number of rooms per person (to two decimal places) (F3.2)
ND 467	factor	Father is employed presently (0,1)
ND 468	factor	Mother is employed presently (0,1)
ND 469-70	factor	Socio-economic index (SEI) range: 0-99
ND 471	2/41	Have a telephone (0,1) used in rural area only
ND 472	2/42	Have an inside toilet (0,1) used in rural area only

APPENDIX C

LIST OF FACTORS

GROUP 1. SELF FACTORS

Set A - BEST WAYS TO GET AHEAD IN LIFE

"What do you think are the best ways to get ahead in life?"
(9/65-68)
rank 1-2-3-4
1=best way
4=worst way

Factor SELF-1:
Machiavellian Personality (Knowing the Right People) Gets One Ahead Best

cum.var.	loading	item
33%	-.89	to work hard
	.51	to know the right people

Factor SELF-2:
Marketing Approach Gets One Ahead Best

cum.var.	loading	item
64%	.73	to have a pleasant personality and be likeable
	-.84	to get a good education

Set B - CONFORMITY

(c4/71-74;5/7;
37-41;9/65)

Factor SELF-3:
Personal Integrity

cum.var.	loading	item
	.34	doing what you think is best no matter what anybody thinks
	.37	I do have a mind of my own when with friends
	.66	I am likely to try out something new and different
17%	.60	I am willing to take a stand on something I think is important

Factor SELF-4:
Conformity for Approval from Others

cum.var.	loading	item
	.70	being liked alot by other students is definitely important
30%	.77	having clothes you like is definitely important

Set B - CONFORMITY, continued

Factor SELF-4:
Conformity for Approval from Others

cum.var.	loading	item
	.70	being liked alot by other students is definitely important
30%	.77	having clothes you like is definitely important

Factor SELF-5:
Competitive Individualistic Values

cum.var.	loading	item
	.69	being an individual different from others is definitely important
	.61	I often/always try to do better than others
40%	-.47	hard work is the best way to get ahead in life

Factor SELF-6:
Conformity to Adults

cum.var.	loading	item
	.61	being respectful to adults is important
50%	.81	willing to do as grownups want me to do

Set C - BLACKWELL SCALES

(c4/9-10,12-13,15-16,
18-19,20-23;c10/9-10,
12,15,17,19)

Factor SELF-7:
Normlessness

cum.var.	loading	item
	.42	there is too much emphasis put on grades today and you feel you are justified in cheating once in a while
	.34	it's a crime to be poor in this country
	.55	whether or not to go by rules depends on situation--if in a bad spot, might have to break rules
	.46	if you can get what is rightfully yours, how you get it is less important

Set C - BLACKWELL SCALES
Factor SELF-7, continued

cum.var.	loading	item
	.62	whenever you read about somebody making the bigtime, you know he broke rules to get there
13%	.73	in order to get ahead in the world today, a person sometimes has to do things that aren't right

Factor SELF-8:
Subjective Socio-Economic Status

cum.var.	loading	item
	.60	your parents provide for your family as well as your friends' parents do for their families
	.47	you could be invited to a party given by anyone in your class at school
	.55	you can bring your friends into your home without being embarrassed by its condition
	.50	you feel that in this school there isn't a group of kids you couldn't associate with
23%	.55	there isn't a group at school which you feel is better off than you (in an economic sense)

Factor SELF-9:
Self-to-Others Belongingness

cum.var.	loading	item
	.59	a person like you does get something out of being a group member
	.56	you and your parents do not have trouble communicating with each other
	.54	you disagree that people would be happy if you quit school
	.59	it's easy to feel that the crowd at school supports you
31%	.35	parents notice the good things their children try to do

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Set D - RESPONSIBILITY

(C2/ 45-48;
C5/22-3, 67-68)

Factor SELF-10:
Responsibility for Care of Own Things

cum.var.	loading	item
	.82	very often clean your own room
28%	.81	very often keep clothes hung up, room in order, etc.

(Continued)

Set F - SELF ESTEEM, continued

Factor SELF-14:
Rosenberg [illegible] Self Esteem Items

cum.var.	loading	item
	−.77	you are not able to do things as well as other people
	+.31	you wish you could have more respect for yourself
	+.31	you feel useless at times
40%	−.77	you disagree that on the whole you are satisfied with yourself

---

Set G - ATTITUDES ABOUT RULES

"Why do you think kids break school rules?"
(C4/56-61)

Factor SELF-15:
Acceptance of Rule-Breaking by Peers

cum.var.	loading	item
	.59	irresponsible
	.51	want to have some fun
	.61	want to get in with a certain group
	.68	don't really appreciate school
	.61	don't know how necessary some rules are
35%	.54	they're mad at the system

Set H - PERSONAL VALUES

"Just how important is each of these to you?"
(C4/71-76;
C5/6-9)

Factor SELF-16:
Personal Value: "Good Child Role"

cum.var.	loading	item
	.69	being respectful of adults
	.63	taking part in school activities
24%	.79	doing things with the rest of the family

Factor SELF-17:
Personal Value: Individualism

cum.var.	loading	item
	.69	doing what you think is best no matter what anybody thinks
	.55	being a leader
36%	.73	being an individual different from others

(Continued)

Set D - RESPONSIBILITY, continued

Factor SELF-11:
Responsibility to Family

cum.var.	loading	item
	.52	very often prepare some of the family meals
	.81	very often look after smaller children or an older person in the family
	.57	spend time on jobs at home
47%	.62	missed days from school because of having to help at home

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Set E - LOCUS OF CONTROL (ROSEN-ROTTER)

(C9/60-63)

Factor SELF-12:
External Locus of Control

cum.var.	loading	item
	.72	parents say you're doing well in school because they're in a good mood
	.56	if teacher passes you in course, it's because she liked you
	.46	getting a job depends on being in right place at right time
35%	.58	if teacher says your work is fine, it's something teachers usually say to encourage pupils

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Set F - SELF ESTEEM

(C3/71-74;
C4/8,11,14,17)

Factor SELF-13:
High Self Esteem--Personal Characteristics

cum.var.	loading	item
		rate self above average on...
	.73	dependability
	.53	imagination
	.71	personal appearance
25%	.70	intelligence

(Continued)

Set H - PERSONAL VALUES, continued

Factor SELF-18:
Personal Value: Social Conformity

cum.var.	loading	item
	.52	being liked a lot by other students
	.67	having clothes you like
	.70	having lots of fun
48%	.51	being good in sports

Set I - MOTHER'S VALUES PERCEIVED BY R

"How important does your mother think these should be to you?" (C6/42-51)

Factor SELF-19:
Mother's Value: "Good Child Role for R"

cum.var.	loading	item
	.61	being respectful of adults
	.59	taking part in school activities
48%	.78	doing things with the rest of the family
		Factor SELF-20: Mother's Value: Individualism for R
	.62	doing what you think is best no matter what anybody thinks
	.62	being a leader
36%	.78	being an individual different from others
		Factor SELF-21: Mother"s Value: Social Conformity
	.69	being liked a lot by other students
	.62	having clothes you like
	.69	having lots of fun
25%	.52	being good in sports

GROUP 2. SCHOOL FACTORS

Set A - ATTITUDES TOWARD EDUCATION

(C3/39;C4/6,7;
C5/73-74;
C10/7,16)

Factor SCH-1:
Education is Valued

cum.var.	loading	item
	.92	educational aspirations are high
	.91	"what will really happen" re: education, is high
37%	.42	disagree that if you can hold a job with the education you now have, then that's good enough

Factor SCH-2:
Negative Valence toward School

	.74	most of the school day seems to be a waste of time
	.46	too much emphasis is placed on education today
55%	.69	absent from school many times because of just not wanting to go to school, instead of for sickness, etc.

Set B - EVALUATION OF TEACHERS

(C3/28-38,44;C4/6;
C5/73-74;C10/7,16)

Factor SCH-3:
Positive Teacher Relationships

cum.var.	loading	item
	.60	most teachers understand problems of teenagers
	.58	most teachers let you study things you are interested in
	.56	most of my teachers make the subject matter interesting
	.74	you feel you can talk things over, even about non-class problems
	.52	your teachers compliment you for work well done
27%	.52	I have more than one teacher who takes a great interest in me

(Continued)

Set B - EVALUATION OF TEACHERS, continued

Factor SCH-4:
Negative Attitude toward Personal Teacher Characteristics

cum.var.	loading	item
		I would NOT say that:
	.56	most of my teachers are fair
	.62	are friendly
	.44	are not too strict
	.62	like their work
	.53	most of my teachers explain things so that you can understand them
39%	.49	I like my teachers very much

Set C - PREFERRED MODES OF LEARNING IN SCHOOL

"As a way for you to learn, how would you rate the following?"
(C3/6-11)

Factor SCH-5:
Preferred Mode of Learning: Teacher and Class Discussion

cum.var.	loading	item
		Good ways are...
	.59	discussing things in class
	.40	working with the teacher, just the two of you
	.81	watching the teacher while she shows the class how to do something
31%	.80	listening to the teacher while she tells the class about something

Factor SCH-6:
Preferred Mode of Learning: Other Students

	-.54	working alone, figuring things by self, is NOT a good way
51%	.74	working with other students IS a good way to learn

Set D - ATTRACTIONS TO SCHOOL LEARNING

"How much did each of the following make the subject you have taken in school the one that you liked the best?" (C3/18-22)

Factor SCH-7:
Positive Situational Influences for Learning in School

cum.var.	loading	item
	.64	the teacher's personality
	.70	the way the subject was taught
	.64	how much I learned in the course
33%	.51	the kids in the class

Factor SCH-8:
Prior Interest an Influence for Learning in School

cum.var.	loading	item
53%	.90	I was interested in the subject before I took it

Set E - DETRACTIONS FROM SCHOOL LEARNING

"How much did each of the following make the subject you have taken in school the one you liked the least?" (C3/23-27)

Factor SCH-9:
Negative Situational Influences for Learning in School

cum.var.	loading	item
	.78	the teacher's personality
	.78	the way the subject was taught
31%	.33	the kids in the class

Factor SCH-10:
Lack of Personal Involvement is a Detraction from Learning

cum.var.	loading	item
	.85	never interested in the subject
55%	.70	didn't learn very much

Set F - STUDYING ENVIRONMENTS

"How important is each of the following in making studying easier for people your age?"
(C2/57-62)

Factor SCH-11:
Social Environment Preferred for Studying

cum.var.	loading	item
	.65	having a radio and/or records to listen to while studying
	.75	having friends of the same sex around
31%	.78	having friends of the opposite sex around

Factor SCH-12:
Intellectual and Physical Environment Preferred for Studying

cum.var.	loading	item
	.69	having a quiet place to work
	.64	having someone at hand who can give you help with your work
56%	.68	having a separate place to work and keep your things for studying

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Set G - DEPENDENCE UPON PEERS

(C4/9,15,71;
C5/7,35,38;
C2/55,69;C3/22)

Factor SCH-13:
Academic Dependence on and Social Need of Peers

cum.var.	loading	item
	.61	I very often study at a friend's house
	.68	a friend very often helps me with my homework
	.47	the kids in the class were a big reason for my liking my favorite subject
	.47	being liked by other students is definitely important to me
17%	.46	I always choose to do things with others rather than be by myself

(Continued)

Set G - DEPENDENCE UPON PEERS, continued

Factor SCH-14:
Group Membership and Peer Approval

cum.var.	loading	item
	.72	a person like me does get much out of being a group member
32%	.67	it's easy for me to feel that the crowd at school approves of me/ supports me

Factor SCH-15:
Self-Directed Independence from Peers

cum.var.	loading	item
	.73	being an individual different from others is definitely important to me
45%	.72	I have a mind of my own when with friends

Set H - EVALUATION OF PEERS

"Think of your group of friends--ones you see often and go around with. How many of them are like the following?" (C4/44-49)

Factor SCH-16:
Positive Evaluation of Peers

cum.var.	loading	item
	.71	enjoy being in school
	-.59	are often absent
	.56	belong to clubs, teams, school activities
	.51	like to read books
	-.57	sometimes get into rather serious trouble
37%	-.69	would like to get out of school as soon as possible

Set I - SOCIABILITY IN SCHOOL

(C3/43,49;
C5/8)

Factor SCH-17:
Active Sociability in School

cum.var.	loading	item
	.67	attend school ball games, dances and parties
	.75	belong to school teams and clubs
41%	.72	taking part in school activities is important

Set J - SMITH-MINK ITEMS

(C3/40-51)

Factor SCH-18:
Good Academic Standing (Smith-Mink)

cum.var.	loading	item
	.83	average age (12 or under) when started 7th grade
	.46	failed no subjects last year
19%	.85	has failed no grades

Factor SCH-19:
Participation in School (Smith-Mink)

	.67	think you're getting enough out of out of school
	.62	attend school ball games, dances or parties
	.61	like teachers
30%	.49	belong to any school team or clubs

Factor SCH-20:
Activity in Organizations Outside of School

	.71	belong to organizations such as 4-H, Boy Scouts, or church groups
40%	.73	has participated actively in any of these groups

(Continued)

Set J - SMITH-MINK ITEMS, continued

cum.var.	loading	Factor SCH-21: "Good Student" (Smith-Mink) item
	.55	never feel tired
	.50	parents encourage you in school work
49%	.42	absent very little in past year of school (0-9 days)

GROUP 3. FAMILY FACTORS

Set A - MOTHER'S CHILD REARING PRACTICES FOR R

(C6/6-17)		Factor FAM-1: Warm Democratic Mother
cum.var.	loading	item
	.64	your mother makes you feel she is always there if you need her
	.67	when your mother punishes you, she explains why
	.48	when you do something your mother doesn't like, you know what to expect
	.67	your mother teaches you things you want to learn
	.58	when your mother wants you to do something, she explains why
22%	.61	you know what your mother expects of you, and how she wants you to behave
		Factor FAM-2: Authoritarian Mother
	.61	your mother slaps you
	.62	your mother nags at you
38%	.57	if you do something your mother doesn't like, she acts cold and unfriendly
		Factor FAM-3: Pressuring Mother
	.49	your mother punishes you by not letting you do what you want
	.75	your mother keeps after you to do better than other children
47%	.77	your mother keeps after you to do well in school

Set B - MOTHER'S CHILD REARING PRACTICES FOR R, SHORT FORMS

(C6/6,7,13,
14,15,17)

Factor FAM-4:
Warm Democratic Mother for R -
Short Form

cum.var.	loading	item
	.74	your mother makes you feel she's there if you need her
	.67	when your mother wants you to do something, she explains why
31%	.63	you know what your mother expects of you and how she wants you to behave
		Factor FAM-5: Authoritarian, Pressuring Mother for R - Short Form
	.73	your mother punishes you by not letting you do what you want
	.61	your mother nags at you
52%	.58	your mother keeps after you to do well in school

Set C - MOTHER'S CHILD REARING PRACTICES FOR SIBLING AS PERCEIVED BY R, SHORT FORMS

(C7/6-11)

Factor FAM-6:
Warm Democratic Mother for Sibling -
Short Form

cum.var.	loading	item
	.71	mother makes sibling feel she's there when sibling needs her
	.61	sibling knows what your mother expects of him, and how mother expects him to behave
30%	.66	when your mother wants sibling to do something, mother explains why
		Factor FAM-7: Authoritarian, Pressuring Mother for Sibling - Short Form
	.67	mother punishes sibling by not letting sibling do what he wants
	.68	mother keeps after sibling to do well in school
50%	.64	mother nags at sibling

Set D - FATHER'S CHILD REARING PRACTICES FOR R

(C7/36-47)

Factor FAM-8:
Warm Democratic Father

cum.var.	loading	item
	.60	he makes you feel he is there if you need him
	.60	when he punishes you, he explains why
	.46	when you do something he doesn't like, you know exactly what to expect of him
	.72	he teaches you things you want to learn
	.75	when he wants you to do something, he explains why
26%	.67	you know what he expects of you and how he wants you to behave
		Factor FAM-9: Authoritarian Father
	-.75	he doesn't nag at you
43%	-.81	if you do something he doesn't like, he doesn't act cold and unfriendly
		Factor FAM-10: Pressuring Father
	.43	he punishes you by not letting you do what you want
	.81	he keeps after you to do better than other children
53%	.77	he keeps after you to do well in school

Set E - MOTHER-CHILD CONFLICT

"Is this something you and your mother disagree about?"
(C6/27-32)

Factor FAM-11:
Mother-child conflict -

cum.var.	loading	item
		yes, very often...
	.69	time to come in at night
	.69	kids you run around with
	.60	grades in school
	.77	places you go
	.53	dropping out of school
41%	.50	helping her around the house

Set F - PARENTAL RULES

"Some parents have rules for their children, while others don't. Do your parents have rules for you about the following?"

(C6/35-39)

Factor FAM-12:
Parental Rules for R's Conduct

cum.var.	loading	item
	.62	rules for time to be in at night
	.43	rules for time spent watching TV
	.60	rules for time spent on homework
	.56	rules for time spent on telephone
33%	.63	rules for doing jobs around the house

Set G - SEX ROLES IN FAMILY DECISION-MAKING

"Who do you feel should have more say in making decisions in a family?"

(C/54-57)

Factor FAM-13:
Father Power in the Family

cum.var.	loading	item
		father more...
	.76	about doing household chores
	.75	about managing family money
	.80	about rules for what you may or may not do
56%	.67	about what food to prepare for the family

Set H - DECISION-MAKING INVOLVING R AND PARENTS

(C2?49;C6/26;
C7/64)

Factor FAM-14:
Child Power of R in the Family

cum.var.	loading	item
	.54	I make the decision about buying clothes (with mother)
	.79	in decisions between mother and me, I do what I want
48%	.72	in decisions between father and me, I do what I want

Set I - DEPENDENCE ON PARENTS

(C2/50;C4/12;
C5/28-29,39;
C10/6,10)

Factor FAM-15:
Loyalty to and Empathy with Parents

cum.var.	loading	item
	.72	I have no trouble communicating with parents
	64	I am often/always willing to do as grownups want me to do
	.39	nothing in life is worth the sacrifice of moving away from one's parents
25%	.63	parents notice the good things their children try to do

Factor FAM-16:
Financial Independence of Parents

cum.var.	loading	item
	.81	I earn much of my own spending money
47%	.81	I spend time on paying jobs outside of my home

Set J - COMPETITION BETWEEN TWO SIBLINGS IN STUDY

(C6/73-75)

Factor FAM-17:
Sibling rivalry

cum.var.	loading	item
	.73	you have to try to do better than sibling in school work
	.76	you do have to compete with sibling for parents' attention
52%	.67	people who know sibling expect you to be like sibling

---

Set K - INTERACTION BETWEEN TWO SIBLINGS IN STUDY

"How often would you say you and sibling do the following together?"
(C6/60-65)

(Continued)

Set K - INTERACTION BETWEEN SIBLINGS, continued

Factor FAM-18:
Frequent Sibling-R Interaction

cum.var.	loading	item
	.69	talk about problems either of you have
	.70	play games or sports together
	.68	work around the house together
	.66	do things together with some of the same friends
	.66	help each other with homework
40%	-.30	do not often argue with each other

Set L - EFFECT OF A MOTHER WORKING (ATTITUDINAL)

"If a mother works, how do you think it affects the family?"
(C2/24-31)

Factor FAM-19:
Mother Who Works Has a Positive Effect

cum.var.	loading	item
	.70	she is more interesting to talk to
	.64	she has more to say about family matters
	.31	kids learn to do more things on their own
	.46	teenagers have more spending money
24%	.65	makes girls in the family more interested in working after they are married

Factor FAM-20:
Mother Who Works Has a Negative Effect

cum.var.	loading	item
	-.74	she is so tired that she takes it out on the family
	-.72	she shows less interest in her children's homework
42%	-.58	kids don't get what they want because they must help more around the house and yard

Set M - HISTORY OF MOTHER ACTUALLY WORKING DURING R'S LIFE

(C2/6,15-17)

Factor FAM-21:
Mother Working Most of Time During R's Education

cum.var.	loading	item
	.95	mother worked nearly all the time during the past year
	.53	mother worked nearly all the time during grade school
	.95	mother worked nearly all the time during junior high school
58%	.94	mother worked nearly all the time during R's pre-school years

APPENDIX D

RESEARCH METHOD

Population and Criteria for Selecting Respondents

Families with only two children in grades 7, 8, or 9 who were also adjacent in birth order constituted the population selected for sampling. These two children had to meet the following further requirements:

a. Both had to have the same woman living in the household and serving as their mother for at least the past three years.

b. Both had to attend the same junior high school.

Families were classified father-present or father-absent depending on whether or not a father or father-figure was living with the family and holding a husband or husband-like relationship with the mother at the time of the interview. Approximately matching numbers of father-present and father-absent families were selected. Because of the limited number of father-absent families suiting the other criteria, an attempt was made to interview the total father-absent population and randomly select a matching number of father-present families for each area.

Families in three geographic areas, representing three physical and cultural environments were sampled. An urban sample was selected from Syracuse, New York; a rurban sample from several small cities in upstate New York (Auburn, Cortland, Elmira, Geneva, and Ithaca;) and a rural sample from several counties in West Virginia. A list of the sixty schools from which the samples were drawn is included in the Appendix. The nature of the geographic areas - urban, rurban, and rural - is reflected in the concentration of the population. Thus, to achieve approximately matching numbers in the three areas, the researchers went to only four schools in urban Syracuse, New York, to eleven schools in five rurban New York State cities, and to 45 schools in rural West Virginia (located in several counties.)

Sample Selection

In each of all the three areas, cooperating school officials provided lists of all children in grades 7, 8, and 9 attending the selected schools. From these records lists of families with only two children in junior high school were compiled. This population was then delineated by whether or not a father was living with the family.

After the required sample size of father-absent families had been identified for each area, a similar number were selected by random procedure from the father-present families.

Because school records available to the researchers were not always accurate or up to date, it was necessary to discard some cases. Often a family had been incorrectly classified father-present or father-absent, or no mother was living with the family. In a few cases both siblings did not attend the same school, or there were more than two siblings in grades 7, 8 and 9, or one or both siblings attended special education classes.

The final sample used for analysis purposes consisted of 150 father-present children and 138 father-absent children from Syracuse (N = 288); 142 father-present and 128 father-absent children from West Virginia (N = 270); and 148 father-present children and 140 father-absent children from upstate New York (N = 288).

Table 1 indicates the number of families interviewed, families rejected after the interview and the final sample by geographic area and father absence.

Table 1

Families Interviewed, Families Rejected After Interview, and Final Sample by Geographic Area and Father Absence (FA) or Presence (FP)

	Families Interviewed	Families Disqualified	Final Sample of Families
	N	N	N
Urban			
FA	80	11	69
FP	82	7	75
	162	18	144
Rurban			
FA	85	15	70
FP	78	4	74
	163	19	144
Rural			
FA	69	5	64
FP	75	4	71
	144	9	135

Total Sample by Families: N = 423
Total Sample by Children: N = 846

Characteristics of the sample

There were a few more girls than boys in the sample although the percentages were not different among the three areas -- 52% girls and 48% boys. Thirty nine percent were in the seventh grade, 30% in the eighth, and 31% in the ninth. The average age of the children in the study was not significantly different for the three areas and was about 13.8 years. Both the mode and median were the same for all three areas, 14 years. The rural area, however, had a much larger standard deviation, 2.02,while the other two areas were very similar with 1.1 for the rurban and 1.15 for the urban areas. Most of the greater variability within the rural area was attributable to the larger number of younger children and a few children who were 17 and over.

The families of the urban area were larger, mean number of children 5.17, while the rural and rurban had one less, 4.04 and 3.96 respectively. The urban area also had a larger number of school dropouts--an average of .50 per family, while the rural area had .31 and the rurban only .13. In the rurban area 92% had no dropouts, while the other two areas had about 75% with none. There were 10% of the urban families that had two or more children who had dropped out, while the other two had about 5% with two or more.

Forty eight percent of the families had a father present in the three areas, but there were somewhat more of the urban families that were separated or divorced, 37% as opposed to 31% in the rurban and 27% in the rural areas. This difference was significant at the .10 level. More of the families were broken by the death of the father in the rural area, 22%, as opposed to 18% in the rurban and 10% in the urban. About 50% of the fathers were employed and there were no significant differences among the three areas.

More of the rurban mothers were employed, 65%, while there were 59% in the urban and 49% in the rural areas who were employed. The rurban mothers had significantly more education, mean 13.17 years, while the mean for the urban area was 11.07, and for the rural area was 10.74 years. The Socio-Economic Index of the families followed the educational level of the mothers with the rurban families having a mean SEI of 46, the urban 32, and the rural 27. All of these means are slightly inflated since the occupational status of the wife was taken into account.

The racial composition of the three areas was markedly different. The urban area was 48% black, while the rurban was 7% and the rural was 5%. There were 4% American Indian and 2% other races in the urban area, while the rural and rurban areas had only 1% other than either white or black. There were 94% white in the rural, 93% in the rurban and 45% in the urban.

The modal religion for all three areas was Protestant, but it was predominant in the rural area, 56%, while the other two had 46% and 47%. The rurban area had the highest percentage of Catholics, 41%, with 30% urban and 18% in the rural area.

Interviewers

College students and graduate students attending Syracuse University in Syracuse, New York, the University of

West Virginia at Morgantown and Cornell University and Elmira College in upstate New York were used as interviewers. These students were trained by personnel connected with the study. Exact procedures were outlined and interview techniques discussed to allow for a minimum of interview variability which might affect interviewe s' responses. An interviewer's manual was prepared for this purpose.

Development of the Research Instrument

A 48 page precoded standardized questionnaire was used including about 452 questions. The questionnaire for the present study was designed on the basis of the following:

1. Statistical results of the pilot study (pretest). Items on the pretest which did not differentiate achievement behavior were eliminated, as were certain items concerned more with general teen-age behavior than with sibling differences in school achievement. A number of graduate theses using our pilot study data were also available.

2. Observational information derived from contacts with teen-agers during the pilot study. Certain items were revised for clarity and brevity. An essential task was to limit the length of the questionnaire to maximize cooperation without fatigue.

3. Recommendations from cooperating faculty members. Updated items were submitted to the research staff along with new potential items for study.

4. A search of the literature on adolescent behavior and and subsequent submission of new items by the research staff. This work yielded potential inclusion of dimensions of adolescent behavior untouched by the pilot study. Intensive review of previous related studies reduced these new areas to those which have been found related to adolescent achievement behavior. An example of such an area included in the final research instrument as a result of this search are the measures of personal values for self and of value identification with the mother.

Data Collection From Respondents

All interviewing was conducted between February and August of 1970. A letter was sent to all parents and their two junior high school children explaining the purpose of the study, assuring them of the confidentiality of all information obtained, and informing them that they had been chosen to take part in the project and that each child would be paid $2.50 for his time. A few days later interviewers contacted the parents and the children by telephone or in person when the family had no telephone. Arrangements were then made to interview the siblings separately.

All interviewing took place after school hours in the late afternoon or early evening, usually in neutral surroundings. Children were never interviewed in their home and rarely in a school or church to avoid the influence these types of surroundings might have upon responses. An old house was used in Syracuse, community centers in upstate New York and West Virginia. Because of the rural nature of West Virginia, it was sometimes necessary to interview in schools or in cars. Transportation to and from the interview site was provided.

The actual interview lasted about an hour and a half, with a 10 minute break in the middle at which time interviewees were given refreshments. The interviewer read all questions and possible responses and marked the subjects response in his precoded questionnaire. Each child was given a questionnaire to read along with the interviewer. Only questions pertinent to the particular respondent were asked. For example, those items referring to father-figure were only asked of fatherless children. At the completion of the interview each interviewer checked through the questionnaire to make sure he had not skipped any questions. The interviewee was then given a check for $2.50, a thank you note, and asked to sign a receipt.

Shortly after the interview, interviewers filled out an evaluation page, classification page and coded the parents' occupations. Items that had not applied to the respondent and therefore skipped were also appropriately coded.

Data Collection From Schools

Grades and intelligence test scores were obtained for each child from school records. Some school districts required parents to sign release forms before this information could be made available to the researchers.

1. Grade-point averages

Academic achievement behavior is more than a function of intelligence. Indeed the intention of this study is to describe those intervening factors which account for disparities in achievement behavior among adolescents. The school variables of test performance, classroom behavior, social adjustment to the school situation, teacher-child relationships, grading practices, and ability are interdependent. One might define the adolescent's cumulation of these variables as his school "coping" behavior--that is, the extent to which he utilizes ability and interpersonal relationships in adapting to the school as an institution.

The subject of grading has been the center of heated controversy. Opponents of traditional grading systems adhered to by most schools today argue that too many intervening variables (for example, test performance, classroom behavior, social adjustment, teacher-child relationships) override a fair evaluation of a student's achievement. The emphasis on earning grades by some parents is so heavy that all sorts of bribes have been offered for a good report card. Perceptive parents will realize the damage such an attitude may have upon the child. Having the child strive for grades alone may override any striving for learning, not to mention the heavy social conditioning for a goal-oriented, competitive personality. Certain children may react strongly and negatively to the constant pressure to achieve good grades and do better than others in school.

In this light, one might best view a child's grade-point average (positively) as his school-academic-adaptability score (SAAS) or (more negatively) as his conformity to traditional parental and teacher expectations that he "performs" intellectually and socially, in accordance with the rules of the traditional school system.

A grade-point average was determined for each respondent. The difference in grade-point average for each sibling pair is the dependent variable for this study, operationally defined as the difference in "school-academic-adaptability score" (SAAS).

A grade-point average was obtained by assigning numerical values to the grade records. A grade of A = 4, B = 3, C = 2, D = 1, and F = 0. The mean was derived from the grades for all courses of study except subjective evaluations such as "cooperation with others". In addition to the regular academic courses, music, art, physical education, vocational and industrial arts, and home economics grades were included.

Grades for the most recent two years of junior high school were averaged; seventh graders' G.P.A.'s were based on one year's grades only.

Following the granting of permission to investigate school data by each school edministration, the guidance departments of each cooperated with the research team in organizing the confidential release of school data. Grades for the two most recent years were recorded in the case of 8th and 9th graders; grades for only one year (7th grade) were recorded for 7th graders. The most recent intelligence test score (mean of verbal and nonverbal, or full-scale score) was recorded. Where two scores were available the higher of the two was used. The name, edition, and the level of the IQ test was always noted. The school file indicated attendance in a special education class for several cases, so these subjects were dropped from the sample.

Where schools assigned numerical grades rather than letter grades, an accurate conversion was made based upon the school's grading system. Thus a grade of 65 in one school was equivalent to a "D" or a "1" whereas a 65 in another school was equivalent to an "F" or a "0".

G.P.A., therefore, ranged from 0 to 4 and equivalent scores were transferred from either numerical (decile) or letter grades.

While schools varied in their grading systems, both children in each sibling pair always attended the same school.

Sibling differences in grade scores are therefore "standardized" for each pair.

2. The IQ score

The Lorge-Thorndike Intelligence Test was the base measure for obtaining the IQ score. Although the majority of subjects had a recorded Lorge-Thorndike score, the remainder had an IQ score from one of the following six tests: Kuhlmann-Anderson, California Test of Mental Maturity (CTMM), Otis-Alpha, Educational Development Series (EDS), and Differential Aptitude (DAT). The Lorge-Thorndike test has a standard deviation of 16, a range of 50-150, and a mean of 100. The majority of subjects had been administered the Lorge-Thorndike so it was desirable to convert scores from other IQ tests to Lorge-Thorndike units where this was required. The Lorge-Thorndike score is also desirable because the relationship of the raw score to the converted deviation IQ score is linear. Other tests, such as the Kuhlmann-Anderson, are curvilinear; this means that a score of 80 on the Lorge-Thorndike test would be several points higher than a Kihlmann-Anderson score. Lorge-Thorndike converted IQ's thus disperse ability along a slightly wider range and in a linear fashion.

The preliminary task was to convert all scores to an equivalent Lorge-Thorndike score. Technical manuals for those intelligence tests involved in the study were temporarily secured from the Cornell University Center of Guidance and Testing. A table of IQ score equivalents on four of the above tests was available from the Lorge-Thorndike technical manual (Table 3, page 8). These values were obtained by adjusting for differences in mean and standard deviation among all the tests. Equivalent scores to the Lorge-Thorndike scale were obtained in this manner for the Otis, CTMM, and Kuhlmann-Anderson.

The technical manual for the EDS indicated that it is constructed with a standard deviation of 16, and a range of 50-150. These scores were thus considered equivalent to the Lorge-Thorndike scale.

The DAT scores are not converted to a conventional IQ score with mean of 100. The mean raw score for girls and boys of junior high school age is presented in the technical manual. The SD was reported to be 16. According to sex, appropriate values were added to those DAT raw scores to convert them to equivalent Lorge-Thorndike scores.

Fitting the raw data for computer analysis

Before reducing variables to meaningful indices via factor analysis, missing or nonacceptable coded responses were corrected using an examination of the frequency distribution (marginals) for each item. Depending upon the nature of the item, a missing or invalid response was assigned either:

1. the mean (whole number code) for that geographic area (Example: the mean was assigned in the case of omission, a "don't know" or invalid response on the "years of parents education" item.)

2. a "0" (zero) or negative response code.

A "9" code was intended originally to serve the function of a "not applicable" response, basically the same in many cases as a "0" or negative response. Likewise, an "8" code was intended originally to serve the function of a "don't know" response; in many cases the mean was assigned to avoid the complication of dealing with suppression of that response in the larger N.

Although each questionnaire had been checked after coding by the individual interviewer, and then rechecked during preparation of raw data for computer processing, there remained overlooked invalid code responses. (Example: a "5" response -invalid- when acceptable choices ranged from codes "0" to "3"). Such invalid code responses were apparent on the frequency distribution printouts, and subsequently either a "0" (zero) code or the mean was assigned, dependent upon the nature of the item.

Factor Analysis

Factor analysis proved an invaluable tool in condensation of data into a more manageable quantity as well as into conceptual units. The BMDX72 Factor Analysis Program (Biomedical Computer Programs, X-Series Supplement) was employed. All factor analyses problems were performed with one orthogonal rotation, an option specified on the BMDX72 program. This step created more statistically discrete factors within each factor analysis problem.

Initially, the researcher proposed to subject large clusters of items (as many as 80 at one time) to a single factor analysis problem. With this approach the incidence of logically unrelated items occurring together in a single factor is high. Experimentation lead us to run smaller problems -- generally 10 to 12 items at once -- with the result of a more logical and useful output.

A list of possible factors was compiled intuitively. Nearly every item in the questionnaire, with the exception of demographic data, was involved in one or more trial factor analysis. (Example: an item at first thought most suited as a measure of values factored more strongly in the conformity indices). Thus the list of possible indices was continuously revised. Certain clusters of items were conveniently located together by content on the questionnaire. Other indices had been purposely spread across the questionnaire to deter response set. Care was taken to group items from throughout the questionnaire if their content was logically related. The factor analytic technique thus proved to be a combination of intuition, logic, and experimentation, subjecting nearly all items to one or more trials in one or more combinations with other items. Some hunches about potential indices proved invalid, while others turned out quite satisfactory indices.

Certain items from known previously validated measures were factored to cross-validate those groups as measures with their published validity. Two sorts of measures were involved here:

1. Whole scales or unitary measures, presented in full in our questionnaire.

These represented an exact replication of a previously validated measure. (Example: a re-factoring of Blackwell's normlessness, subjective socio-economic status, and self-to-others-belongingness items disclosed that all but two of the original eighteen items fell into their prior indices.)

2. Selected items or partial scales from a previously validated full scale.

These clusters of selected items from complete full scales were subjected to factor analysis to test their suitability as a revised short form (containing fewer items but measuring the same concept). (Example: factoring of selected Rosenberg self-esteem items disclosed that the four selected items could be suitably utilized in obtaining a total self-esteem score.

All sets of factor analyses were performed with the sample of 846 adolescents. The sets, or groups of items factored at any single time, involved all the data in the three groups of variables: self, school, and family.

The criterion for interpreting the factor analysis output was to place each item into the factor on which its factor loading was greatest. Rotation facilitated forcing an item to load high on only one factor and low on the other factors in a given group. However, in some cases an item had a poor loading (less than.30) on all factors and was usually removed from the cluster to be included in a different trial problem. The remaining items were then refactored to account for slight adjustments in new factor loadings with the absence of that item (although the change in loading is generally insignificant).

In one case, an item had high loadings on two factors and was placed into its second highest loading factor in order to create two comparable measures. (In this case, to have father's childrearing practices and mother's childrearing practices measures consist each of three factors, each factor comprised of the same items for the mother's and father's measures).

The procedure for accepting the factor output, in addition to loadings of items on each factor, was a cumulative variance approaching 50% or greater and an eigen value of 1.00 or greater. Nearly all of the factor analysis problems met this requirement after revision and refinement; a few were retained with a cumulative variance of 40% or greater.

After refinement, a total of 63 factors derived from 218 items were the result of our factor analytic process. This appears to have been a worthwhile method of data condensation. A complete presentation of the factors derived appears in the Appendix, including factor loadings and cumulative variance accounted for by the factors of each set of analyses.

Below is a brief summary of the factoring results for family, self and school.

All analyses were performed with the BMDX72 Factor Analysis Program (Biomedical Computer Programs, X-Series Supplement) with orthogonal rotation. As reported here, the final factors have item factor loadings of not less than .30 and generally greater than .40. The cumulative variance (cum. var.) of each factored set of items approaches 50% with an eigenvalue of 1.00 or greater. All analyses were performed on the individual scores of all 846 adolescents. The results of factor analysis are grouped here as follows. (The order of presentation of the factors is arbitrary.)

Group 1. Family - family (parent, child, sibling) variables.
Group 2. Self - psychological self, personality variables.
Group 3. School - school-peer variables

Group	Sets of factors Analyses refined	Total number factors in group	Number of items comprising factors
1. Family	13	21	80
2. Self	9	21	77
3. School	10	21	60
	32	63	218

The factors are presented within each group by sets (clusters of items employed in a single factor analysis).

APPENDIX E

Participating schools

10/70 - 1 School number (each school with number by alphabetical order)

Urban - Syracuse, N.Y.
01 Blodgett
02 Clary
03 Roosevelt
04 Shea

Rurban - upstate N.Y.
Auburn
05 Central
06 East
07 West
Cortland
08 Cortland J.H.
Elmira
09 Booth
10 Broadway
11 Ernie Davis
12 Parley-Coburn
Geneva
13 Geneva Jr. H.
Ithaca
14 Boynton J.H.
15 Dewitt J.H.

Rural - West Virginia
East Panhandle County
16 Circleville
17 Fort Ashby
18 Moorefield
19 Ridgeley
20 Romney
21 Seneca Rocks
Harrison County
22 Bridgeport
23 Broadway
24 Gore
25 Norwood
26 North View
27 R.W.
28 Shinnston
Marion County
29 Barnes
30 Barrackvile
31 Central
32 East Fairmont
33 East Park

27 R.W.
28 Shinnston
Marion County
29 Barnes
30 Barrackvile
31 Central
32 East Fairmont
33 East Park
34 Fairmont Catholic
35 Fairmont J.H.
36 Fairmont H.S.
37 Fairview
38 Farmington
39 Monogah
40 Pleasant Valley
41 Rivesville
42 State Street
Monogalia County
43 Cass District
44 Clay-Batelle
45 Morgantown J.H.
46 Riverside
47 Sabraton
48 St. Francis
49 Suncrest
50 Waitman-Barbe
51 Westover
Taylor County
52 Flemington
53 Grafton
Preston County
54 Arthurdale
55 Bruceton
56 Fellowsville
57 Rowlesburg
58 Terra Alta
59 Tunnelton
60 Uniontown

CODE NUMBER 899-1

CORNELL STUDIES OF THE FAMILY

INTERVIEWER ______________________ DATE ______________

Card 1
Cols. 1-8

Classification page

________-____1-4. Identification Number
1-3. Family Number
4. Sibling Number

1 5. (Card Number 1)

___6. Geographic Area
0 Rural
1 Rurban
2 Urban

___7. Father presence (0 for absent, 1 for present)

0 8. For future use (SES)

After the interview is completed, answer each of the following questions and explain any non-standard situations below (in writing) while memory of the interview is still fresh. Notify your supervisor since this information will be needed to decide whether to reclassify or even to eliminate an unusual case.

Has the same person been living with the respondent and serving as his mother for at least two years?
(page 2a, number 28, codes 0-4 or 9 and numbers 29,30, codes "02" and greater, or "99")

☐ Yes ☐ No - explain below.

Is R in Grade 7, 8, or 9?

☐ Yes ☐ No - give school status below.

Is the sibling in the study -(see page 1)

a) really R's sibling? (maybe step or foster, but not cousin, etc.)
b) living in the same household as R?
c) in grade 7, 8, or 9?
d) the only sibling living in R's home who is in grade 7, 8, or 9?
e) the next younger or next older sibling to R (or R's twin)?

☐ Yes ☐ No - explain below which sample requirements are not met. Does another sibling meet them all?

Was R's classification on "father present" in column 7 above correct?
("Father present" means there is a person serving as father and he lives at home - page 2, number 26)

☐ Yes ☐ No - explain below.

Explanations ....
....
....
....
..................................(Use inside cover if more space is needed.)

Card 1
Cols. 9-24

TO BEGIN WITH, PLEASE LIST YOUR BROTHERS AND SISTERS, RANKING THEM FROM OLDEST TO YOUNGEST. GIVE THEIR AGES AND GRADES IN SCHOOL. INCLUDE YOURSELF IN THE LIST. (Use opposite page if necessary.)

NAME	SEX	AGE	GRADE IN SCHOOL	LIVING AT HOME	Step, twin, etc.
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....
....	...	...	....	....	....

The exact ages and grades of R and his nearest siblings are especially important since the sample definition depends on them. If any sibling is over 7 and not in school, ask whether he graduated or dropped out, and record "grad", or "dropout" under GRADE IN SCHOOL, using the margin to explain special situations. Ask at what age any dropouts withdrew from school, and record that beside "dropout". Then ask and record whether each sibling is living at home.

If the same age is given for more than one person, make sure they are listed in the right order, or, if they are twins, record "twin" in the last column across from their names. If R volunteers that any of the persons on the list is step, half, foster, or adopted, record "step", "half", "foster", or "adopted" in the last column.

Code this information after the interview is completed, as follows:

___/___ 9,10. Age of R.

___11. Sex of R. 0 for male, 1 for female.

___12. Grade of R. If other than 7, 8, or 9, code 0 and explain on classification page.

___13. Total number of males in the list. If more than 8, code "8".

___14. Total number of females in list. If more than 8, code "8".

___15. Rank of R in the list. If higher than 8, code "8". If R is a twin, code the rank as listed.

___16. Rank of R among same sex in the list. If higher than 8, code "8"

___/___17,18. Age of oldest child living at home

___/___19,20. Age of youngest child living at home.

___21. Number of children living at home, If more than 8, code "8"

___22. Number of dropouts on the list.

___23. Number on list who are step, half, foster, or adopted.

___24. If there are twins on the list, code rank of first twin listed. If there are no twins, code "0". If there is more than one set of twins, code "8".

Card 1
Cols. 25-26

WHO ELSE LIVES WITH YOU?

....
....
....
....
....
....
....
....
....
....

1) "Lives with you" should be taken to mean those who sleep in the house and take meals there. Fathers who travel (salesmen, men in service who come there when on leave, etc.) should be included.

2) In left column, record name R gives. In right column, record any clarification you need regarding relationship and age. You will need this information to code later columns.

3) Here and for the rest of the questionnaire, adoptive parents will be counted as real parents.

If R has not listed a father above, skip the next question and code it "9".

If R has listed a father above, ask:

___25. IS THIS YOUR REAL FATHER?

0 NO

1 YES

9 No father living with R

If code for 25 is "1", skip question 26 and code it "9".

If R's real father does not live with R, (25 coded 0 or 9), ask:

___26. WHO IS SERVING AS YOUR FATHER?

0 MY STEPFATHER
1 MY FOSTER FATHER
2 MY GRANDFATHER
3 ANOTHER RELATIVE (UNCLE, ETC.)
4 ANOTHER ADULT
5 NO ONE
6 MY REAL FATHER WHO DOES NOT LIVE WITH ME
7 0 - 4 not living with R.
9 Real father lives with R.

If R chooses 0, 1, 2, 3, or 4, check to be sure that this person is someone that R listed as living with R. If he does not live with R, code "7".

If R says more than one answer is really true, try to get him to say which person influences him most and use that response. If he can't choose between them, circle both. Then record what R said below and code "8".

Card 1
Cols. 27-40

If R has not listed a mother above, skip the next question and code it "9".

If R has listed a mother above, ask:

___27. IS SHE (your mother) YOUR REAL MOTHER?

0 NO
1 YES
9 No mother living with R.

If code for 27 is "1", skip the next two questions and code them "9" and "99".

If R's real mother does not live with R, (27 coded 0 or 9), ask:

___28. WHO IS SERVING AS YOUR MOTHER?

0 MY STEPMOTHER
1 MY FOSTER MOTHER
2 MY GRANDMOTHER
3 ANOTHER RELATIVE (AUNT, ETC.)
4 ANOTHER ADULT
5 NO ONE
6 MY REAL MOTHER WHO DOES NOT LIVE WITH ME
7 0 - 4 not living with R.
9 Real mother lives with R.

If R chooses 0, 1, 2, 3, or 4, check to be sure that this person is someone that R listed as living with R. If she does not live with R, code 28 with "7".

If code for 28 is 5, 6, 7, or 9, skip the next question and code it "99".

If code for 28 is 0, 1, 2, 3, 4, ask:

___/___/29,30. HOW MANY YEARS AGO DID SHE JOIN YOUR FAMILY OR YOU JOIN HERS?

Code actual number of years. If R can't remember exactly, take his best guess.

Code the following after the interview is completed, using R's listing above.

___31. Actual number of grandmothers living at home.
___32. Actual number of grandfathers living at home.
___33. Number of other related females over 25 living at home.
___34. Number of other related males over 25 living at home.
___35. Number of other unrelated females over 25 living at home.
___36. Number of other unrelated males over 25 living at home.
___37. Number of other females under 25, but over 15 living at home.
___38. Number of other males under 25, but over 15 living at home.
___39. Number of other females 15 and under living at home.
___40. Number of other males 15 and under living at home.

Card 1
Cols. 41-47

Pages 2b, 2c, 2d, and 2e are to be administered only if R's real father is not living at home. If real father is living at home, code all spaces with 9's.

If, at the top of page 2, R listed a stepfather or foster father (or someone else who has husband-like relationship to his mother) as living with him, ask the questions on this page:

___/___/41,42. HOW MANY YEARS AGO DID ____________________ JOIN YOUR
(your stepfather or foster father)
FAMILY OR YOU JOIN HIS?.......

Code actual number of years ago that R's "stepfather" joined R's family. If R is not sure, take his best guess.

___43. HOW MUCH OF THE TIME DURING THE PAST YEAR, HAS YOUR ________________ HAD A JOB?
(stepfather or foster father)

0 NONE OF THE TIME

1 VERY LITTLE OF THE TIME

2 LESS THAN HALF OF THE TIME

3 MORE THAN HALF OF THE TIME

4 ALMOST ALL THE TIME

5 ALL THE TIME

___44. IS YOUR ____________________ WORKING NOW?
(stepfather or foster father)

0 NO

1 YES

Any job for pay, part-time, fulltime, at home, away from home should be accepted on these questions. If he is a student, count him as working.

If he has two jobs, record both below, but code for job that R considers his main job. Even if he is not working now, ask the following three questions about his usual occupation. If R cannot supply a 'usual' job, ask for his most recent job.

45. WHERE DOES HE WORK? ....

46. WHAT IS HIS JOB? ....

47. WHAT KIND OF WORK DOES HE ACTUALLY DO ON THE JOB? ....

....

___/___/___/45-47. Occupational code. Refer to code book.

Card 1
Cols. 48-54

The questions on this page should be used for all the R's whose real father is not living at home.

___48. WHICH OF THE FOLLOWING IS TRUE?

0 MY REAL FATHER AND MY MOTHER ARE SEPARATED

1 MY REAL FATHER AND MY MOTHER ARE DIVORCED

2 MY REAL FATHER IS NOT LIVING

If R does not know whether his parents are separated or divorced, code "0". If R volunteers that his parents were never married, code "3".

___/___/49,50. HOW OLD WERE YOU WHEN YOUR REAL FATHER STOPPED LIVING WITH YOU?

1) Code actual age of R when father left home or died.
2) If R can't remember exactly how old he was, take his best guess.
3) If father died after he left home, code R's age when father left home.
4) If father left and returned and left again etc., try to find R's age at the time his father started being absent more than he was present in the home, and code that age.

___/___/51,52. HOW MANY TIMES DO YOU USUALLY SEE YOUR FATHER - IN A MONTH?

By father we mean "real father".

Code 99 if father is not living.

___53. WHEN DID YOU LAST SEE YOUR FATHER?

This question pertains to real father.

0 WITHIN THE LAST FEW MONTHS

1 ABOUT A YEAR AGO

2 A FEW YEARS AGO

3 AT LEAST TEN YEARS AGO

4 I'VE NEVER SEEN HIM

_0_54. For future use.

If at the top of page 2, R said his grandfather or uncle is now living at home, ask all the questions on this page.

___/___/55,56. HOW MANY YEARS AGO DID ____________________ (your uncle or grandfather) JOIN YOUR FAMILY OR YOU JOIN HIS?

Code actual number of years. If R is not sure, take his best guess.

___57. DOES YOUR __________ EARN SOME OF THE MONEY FOR YOUR FAMILY?

Supply grandfather or uncle in space. If both contribute, code "2".

0 NO

1 YES

If both uncle and grandfather (or more than one uncle etc.) live at home and contribute to family support, ask the following questions about the person who R says contributes more.

___58. HOW MUCH OF THE TIME DURING THE PAST YEAR, HAS YOUR __________________ (grandfather or uncle) HAD A JOB?

0 NONE OF THE TIME

1 VERY LITTLE OF THE TIME

2 LESS THAN HALF OF THE TIME

3 MORE THAN HALF OF THE TIME

4 ALMOST ALL OF THE TIME

5 ALL THE TIME

Any job for pay, whether fulltime or part-time, at home or away from home, should be accepted on these questions. If he is a student, count him as working.

___59. IS YOUR __________________ (grandfather or uncle) WORKING NOW?

0 NO

1 YES

If he has two jobs, record both below, but code for the job R considers his main job. Even if he is not working now, ask the following three questions about his usual occupation. If R cannot supply a 'usual' job, ask for his most recent job.

60. WHERE DOES HE WORK? ....

61. WHAT IS HIS JOB? ....

62. WHAT KIND OF WORK DOES HE ACTUALLY DO ON THE JOB? ....

....

___/___/___/60-62. Occupational code. Refer to code book.

Card 1
Cols. 63-68

:If, in column 26, page 2, R says "NO ONE" when asked "Who is serving :
:as your father?", ask the questions on this page: Otherwise, code 9.:

___63. DURING PART OF YOUR LIFE WAS THERE A TIME WHEN SOMEONE LIVED WITH YOU WHO SERVED AS YOUR FATHER, BESIDES YOUR REAL FATHER?

0 NO

1 YES

If R answers "NO" code the remaining spaces with 9's.

If R answers "YES" ask the remaining questions on this page.

___64. WHO WAS IT?

0 MY STEPFATHER

1 MY FOSTER FATHER

2 MY GRANDFATHER

3 ANOTHER RELATIVE (UNCLE, ETC.) WHO?..............................

4 A FRIEND OF THE FAMILY

5 OTHER

65. HOW MANY YEARS AGO DID HE START LIVING WITH YOU?........................

__/__/65,66. Code number of years ago that this person came to live with R.

67. HOW MANY YEARS AGO DID HE LEAVE?.................................

__/__/67,68. Code actual number of years ago that this person died or left R's home.

___69. HOW MUCH OF THE TIME, DURING THE LAST YEAR, HAS YOUR FATHER HAD A JOB?

0 NONE OF THE TIME

1 VERY LITTLE OF THE TIME

2 LESS THAN HALF OF THE TIME

3 MORE THAN HALF OF THE TIME

4 ALMOST ALL OF THE TIME

5 ALL THE TIME

In these questions we are asking about the child's real father. For cols. 69 and 70 if child's real father is dead, code "9" and if child doesn't know, code "8". For columns 71-73, see code book.

___70. IS YOUR FATHER WORKING NOW?

0 NO

1 YES

If father is a student, count him as working. If R's father is not working now, ask the following three questions about his 'usual' occupation. If R cannot supply a 'usual' job, ask about his most recent job.

71. WHERE DOES YOUR FATHER WORK? ____________________

WHAT IS HIS JOB? ____________________

WHAT KIND OF WORK DOES HE ACTUALLY DO ON THE JOB? ____________________

____

___/___/___71-73. Occupational code. Refer to code book.

___74. DOES YOUR MOTHER NOW HAVE A JOB FOR PAY?

0 NO

1 YES, AT HOME ONLY

2 YES, AWAY FROM HOME

If any work is away from home code "2".

___/___75,76. IF NO, ABOUT HOW LONG HAS IT BEEN SINCE YOUR MOTHER HAD A JOB?__________

Code 00 if mother is now working. Try to establish amount of time in weeks, months, etc. If less than a month code 01. Otherwise code number of months since she had a job, e.g., three months: 03. If she never worked, code 99. Beyond 8 years, code 97.

END CARD 1

Card 2
Cols. 1-11

Cols. 1-5 I.D. and Card Numbers

___6. HOW MUCH OF THE TIME DURING THE PAST YEAR WOULD YOU SAY YOUR MOTHER HAS HAD A JOB?

0 NONE OF THE TIME
1 VERY LITTLE OF THE TIME
2 LESS THAN HALF OF THE TIME
3 MORE THAN HALF OF THE TIME
4 ALMOST ALL THE TIME
5 ALL THE TIME

Any job for pay, whether fulltime or part time, is considered alike here.

If R's mother has worked at all, ask the following three questions about her usual occupation. If R cannot supply a 'usual' job, ask R about her most recent occupation.

7. WHERE DOES SHE WORK? ____________________

WHAT IS HER JOB? ____________________

WHAT KIND OF WORK DOES SHE ACTUALLY DO ON THE JOB? ____________________

____

__/__/__7-9. Occupational code. Refer to code book.

___10. WHEN YOUR MOTHER IS WORKING, HOW MANY HOURS DOES SHE WORK EACH WEEK?

0 SHE DOESN'T WORK
1 15 HOURS OR LESS
2 16 TO 30 HOURS
3 31 TO 40 HOURS
4 MORE THAN 40 HOURS

If R has trouble answering, break down time to hours per day. For example: a regular 4 - hour day would be equivalent to a 20 hour week.

___11. HOW MUCH DOES YOUR MOTHER ENJOY WORKING ON HER JOB?

0 SHE DOESN'T LIKE IT AT ALL
1 SHE DOESN'T MIND WORKING MUCH
2 SHE MOSTLY ENJOYS WORKING
3 SHE ENJOYS WORKING VERY MUCH

Make it clear that the work referred to is work for pay.

Code "9" if mother doesn't work.

Card 2
Cols. 12-17

___12. DID YOU EVER GO TO NURSERY SCHOOL?

0 NO

1 YES

___13. DID YOU EVER GO TO KINDERGARTEN?

0 NO

1 YES

___14. WHEN YOU WERE LITTLE, WHO USUALLY TOOK CARE OF YOU, BESIDES YOUR MOTHER?

0 NOBODY

1 A BABY SITTER

2 A FRIEND OF THE FAMILY

3 AN OLDER SISTER OR BROTHER

4 AN OLDER RELATIVE (GRANDMOTHER, AUNT, ETC.)

___15. DID YOUR MOTHER WORK WHEN YOU WERE A PRESCHOOLER - BEFORE YOU WENT TO KINDERGARTEN?

0 NONE OF THE TIME

1 A LITTLE OF THE TIME

2 MOST OF THE TIME

3 ALL OF THE TIME

___16. WHEN YOU WERE IN GRADE SCHOOL (1 - 6), DID YOUR MOTHER WORK?

0 NONE OF THE TIME

1 A LITTLE OF THE TIME

2 MOST OF THE TIME

3 ALL OF THE TIME

___17. SINCE YOU STARTED JUNIOR HIGH SCHOOL, HAS YOUR MOTHER WORKED?

0 NONE OF THE TIME
1 A LITTLE OF THE TIME
2 MOST OF THE TIME
3 ALL OF THE TIME

Card 2
Cols. 18-31

WHEN YOUR MOTHER WORKS, HOW IMPORTANT ARE THE FOLLOWING REASONS FOR WORKING?

		NOT IMPORTANT AT ALL	A LITTLE IMPORTANT	FAIRLY IMPORTANT	VERY IMPORTANT
___18.	WE NEED THE MONEY.	0	1	3	4
___19.	SHE LIKES TO HAVE EXTRA MONEY.	0	1	3	4
___20.	SHE WANTS TO GET OUT OF THE HOUSE.	0	1	3	4
___21.	SHE IS INTERESTED IN HER WORK.	0	1	3	4
___22.	SHE LIKES TO HELP OTHERS AND DO SOMETHING USEFUL.	0	1	3	4
___23.	SHE FEELS THAT SHE IS MORE RESPECTED IF SHE WORKS.	0	1	3	4

The following question is to be asked of all R's regardless of whether their mother works or not.

IF A MOTHER WORKS, HOW DO YOU THINK IT AFFECTS THE FAMILY?

		STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
___24.	SHE IS SO TIRED THAT SHE TAKES IT OUT ON THE FAMILY.	0	1	3	4
___25.	SHE SHOWS LESS INTEREST IN HER CHILDREN'S SCHOOLWORK.	0	1	3	4
___26.	SHE IS MORE INTERESTING TO TALK TO.	0	1	3	4
___27.	SHE HAS MORE TO SAY ABOUT FAMILY MATTERS.	0	1	3	4
___28.	KIDS LEARN TO DO MORE THINGS ON THEIR OWN.	0	1	3	4
___29.	TEENAGERS HAVE MORE SPENDING MONEY.	0	1	3	4
___30.	KIDS DON'T GET TO DO WHAT THEY WANT BECAUSE THEY MUST HELP MORE AROUND THE HOUSE AND YARD.	0	1	3	4
___31.	MAKES GIRLS IN THE FAMILY MORE INTERESTED IN WORKING AFTER THEY ARE MARRIED.	0	1	3	4

THIS NEXT GROUP OF QUESTIONS IS ABOUT YOUR HOME.

___32. HOW DO YOU FEEL ABOUT YOUR HOUSE AND THE CONDITION IT IS IN?

0 IT'S NOT SO GOOD.

1 IT'S RATHER BAD, BUT IT COULD BE WORSE.

2 IT'S ALL RIGHT, I GUESS. I CAN'T COMPLAIN.

3 I'M QUITE SATISFIED WITH IT.

4 I'M ENTHUSIASTIC. IT COULDN'T BE BETTER.

___33. MOST OF THE TIME, DO YOU SHARE A ROOM WITH OTHERS?

0 I HAVE A ROOM OF MY OWN.

1 I SHARE A ROOM WITH ONE OTHER.

2 I SHARE A ROOM WITH 2 OTHERS.

3 I SHARE A ROOM WITH AT LEAST THREE OTHERS.

___34. MOST OF THE TIME, DO YOU SHARE A PLACE FOR KEEPING YOU CLOTHES WITH OTHERS?

0 I HAVE MY OWN PLACE FOR KEEPING CLOTHES.

1 I SHARE WITH ONE OTHER.

2 I SHARE WITH TWO OTHERS.

3 I SHARE A PLACE FOR KEEPING CLOTHES WITH THREE OR MORE PEOPLE.

4 I DON'T HAVE ANY SPECIAL PLACE TO KEEP MY CLOTHES.

Clarify place as closet, bureau, etc. if necessary.

WHICH OF THESE THINGS DO YOU HAVE IN YOUR HOME?

		NO	YES
___35.	A RECORD PLAYER	0	1
___36.	AN ENCYCLOPEDIA	0	1
___37.	A PLACE WHERE BOOKS ARE KEPT	0	1
___38.	A LOCAL NEWSPAPER	0	1
___39.	A NEWS MAGAZINE	0	1
___40.	A TELEVISION SET	0	1
___41	A TELEPHONE	0	1
___42.	AN INDOOR TOILET	0	1

Card 2
Cols. 43-51

___/___43,44. HOW MANY ROOMS ARE THERE IN YOUR HOUSE?_______ DON'T COUNT THE BATHROOM.

DO YOU DO ANY OF THE FOLLOWING AROUND THE HOUSE?

		NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN
___45.	PREPARE SOME OF THE FAMILY MEALS	0	1	3	4
___46.	CLEAN YOUR OWN ROOM	0	1	3	4
___47.	LOOK AFTER SMALLER CHILDREN OR AN OLDER PERSON IN THE FAMILY	0	1	3	4
___48.	KEEP CLOTHES HUNG UP, YOUR ROOM IN ORDER, ETC.	0	1	3	4

___49. WHO MAKES THE DECISIONS WHEN IT COMES TO BUYING YOUR CLOTHES?

0 MY PARENTS ALWAYS DECIDE WHAT I SHOULD GET.

1 MY PARENTS USUALLY DECIDE WHAT I SHOULD GET.

3 I USUALLY DECIDE WHAT I SHOULD GET.

4 I ALWAYS DECIDE WHAT I SHOULD GET.

___50. HOW DO YOU GET YOUR SPENDING MONEY?

0 I DON'T EARN ANY OF MY OWN MONEY, MY PARENTS GIVE ME MY SPENDING MONEY.

1 I EARN A LITTLE OF THE MONEY I HAVE TO SPEND; MY PARENTS GIVE ME THE REST.

2 I EARN ABOUT HALF THE MONEY I HAVE TO SPEND; MY PARENTS GIVE ME THE OTHER HALF.

3 I EARN ALMOST ALL THE MONEY I HAVE TO SPEND; MY PARENTS GIVE ME A SMALL AMOUNT.

4 I EARN ALL THE MONEY I HAVE TO SPEND; MY PARENTS DON'T GIVE ME ANY.

___51. DOES YOUR FAMILY HAVE A CHECKING ACCOUNT AT A BANK?

0 NO

1 YES

Card 2
Cols. 52-68

WHERE DO YOU STUDY?

		NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN
___52.	AT SCHOOL	0	1	2	3
___53.	AT HOME	0	1	2	3
___54.	AT THE LIBRARY	0	1	2	3
___55.	AT A FRIEND'S HOUSE	0	1	2	3
___56.	OTHER	0	1	2	3

HOW IMPORTANT IS EACH OF THE FOLLOWING IN MAKING STUDYING EASIER FOR PEOPLE YOUR AGE:

		NOT IMPORT-ANT AT ALL	NOT VERY IMPORTANT	FAIRLY IMPORTANT	VERY IMPORTANT
___57.	HAVING A RADIO AND/OR RECORDS TO LISTEN TO WHILE STUDYING.	0	1	3	4
___58.	HAVING FRIENDS OF THE SAME SEX AROUND.	0	1	3	4
___59.	HAVING FRIENDS OF THE OPPOSITE SEX AROUND.	0	1	3	4
___60.	HAVING A QUIET PLACE TO WORK	0	1	3	4
___61.	HAVING SOMEONE AT HAND WHO CAN GIVE YOU HELP WITH YOUR WORK WHEN YOU NEED IT.	0	1	3	4
___62.	HAVING A SEPARATE PLACE TO WORK AND KEEP YOUR THINGS FOR STUDY.	0	1	3	4

___/___63,64. WHICH OF THESE IS THE MOST IMPORTANT? ....

Code column number of condition chosen.

___65. DO YOU HAVE THIS AT HOME?

0 NO

1 YES

___/___66,67. WHICH OF THESE IS THE NEXT MOST IMPORTANT? ....

Code column number of condition chosen.

___68. DO YOU HAVE THIS AT HOME?

0 NO

1 YES

Card 2 - 3
Cols. 69 - 14

DO ANY OF THESE PEOPLE HELP YOU WITH YOUR HOMEWORK?

		NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN
___69.	FRIEND	0	1	3	4
___70.	SISTER	0	1	3	4
___71.	BROTHER	0	1	3	4
___72.	MOTHER	0	1	3	4
___73.	FATHER	0	1	3	4
___74.	SOMEONE ELSE	0	1	3	4
	WHO?				

0 / 0 75,76. Total

Card 3 Cols. 1-5 I.D. and Card Numbers

AS A WAY FOR YOU TO LEARN, HOW WOULD YOU RATE THE FOLLOWING?

		NOT A GOOD WAY FOR ME TO LEARN	A FAIR WAY FOR ME TO LEARN	A GOOD WAY FOR ME TO LEARN	A VERY GOOD WAY FOR ME TO LEARN
___ 6.	WORKING ALONE AND FIGURING THINGS OUT FOR YOURSELF	0	1	3	4
___ 7.	WORKING WITH OTHER STUDENTS	0	1	3	4
___ 8.	DISCUSSING THINGS IN CLASS	0	1	3	4
___ 9.	WORKING WITH THE TEACHER, JUST THE TWO OF YOU	0	1	3	4
___10.	WATCHING THE TEACHER WHILE SHE SHOWS THE CLASS HOW TO DO SOMETHING	0	1	3	4
___11.	LISTENING TO THE TEACHER WHILE SHE TELLS THE CLASS ABOUT SOMETHING	0	1	3	4

___/___12,13. WHICH OF THESE IS THE BEST WAY FOR YOU TO LEARN? ....

Code column number of way chosen.

___14. HOW OFTEN WOULD YOU SAY THAT IT IS USED IN YOUR CLASSES NOW?

0 NEVER
1 HARDLY EVER
3 FAIRLY OFTEN
4 VERY OFTEN

___/___15,16. WHICH OF THESE WAYS IS THE NEXT BEST WAY FOR YOU TO LEARN? ....

Code column number of way chosen.

___17. HOW OFTEN WOULD YOU SAY THAT THIS WAY IS USED IN YOUR CLASS NOW?

0 NEVER

1 HARDLY EVER

3 FAIRLY OFTEN

4 VERY OFTEN

WHAT SUBJECT HAVE YOU TAKEN IN SCHOOL THAT YOU LIKE BEST? ....

HOW MUCH DID EACH OF THE FOLLOWING MAKE YOU LIKE IT?

		VERY LITTLE	LITTLE	MUCH	VERY MUCH
___18.	THE TEACHER'S PERSONALITY.	0	1	3	4
___19.	THE WAY THE SUBJECT WAS TAUGHT.	0	1	3	4
___20.	YOU WERE INTERESTED IN THE SUBJECT BEFORE YOU TOOK IT.	0	1	3	4
___21.	HOW MUCH YOU LEARNED IN THE COURSE.	0	1	3	4
___22.	THE KIDS IN THE CLASS.	0	1	3	4

WHAT SUBJECT HAVE YOU TAKEN IN SCHOOL THAT YOU LIKE THE LEAST............

HOW MUCH DID EACH OF THE FOLLOWING HAVE TO DO WITH YOUR DISLIKING IT?

		VERY LITTLE	LITTLE	MUCH	VERY MUCH
___23.	THE TEACHER'S PERSONALITY.	0	1	3	4
___24.	THE WAY THE SUBJECT WAS TAUGHT.	0	1	3	4
___25.	YOU WERE NEVER INTERESTED IN THE SUBJECT.	0	1	3	4
___26.	YOU DIDN'T LEARN VERY MUCH.	0	1	3	4
___27.	THE KIDS IN THE CLASS.	0	1	3	4

Card 3
Cols. 28-38

IN GENERAL, HOW DO YOU FEEL ABOUT YOUR TEACHERS?

IN GENERAL, YOUR TEACHERS:

		MOST	MANY	A FEW	NONE
___28.	ARE FRIENDLY.	4	3	1	0
___29.	ARE FAIR.	4	3	1	0
___30.	ARE NOT TOO STRICT.	4	3	1	0
___31.	UNDERSTAND PROBLEMS OF TEENAGERS.	4	3	1	0
___32.	LIKE THEIR WORK.	4	3	1	0
___33.	LET YOU STUDY WHAT YOU ARE INTERESTED IN.	4	3	1	0

HERE ARE MORE QUESTIONS ABOUT YOUR TEACHERS.

		NONE	A FEW	MANY	MOST
___34.	YOUR TEACHERS EXPLAIN THINGS THAT ARE HARD TO UNDERSTAND SO THAT YOU CAN UNDERSTAND THEM.	0	1	3	4
___35.	YOUR TEACHERS MAKE THE SUBJECT MATTER INTERESTING.	0	1	3	4
___36.	YOU FEEL THAT YOU CAN TALK THINGS OVER WITH YOUR TEACHERS, EVEN WHEN YOUR PROBLEMS ARE NOT RELATED TO THEIR CLASSES.	0	1	3	4
___37.	YOUR TEACHERS COMPLIMENT YOU FOR WORK DONE WELL.	0	1	3	4

___38. DO YOU NOW HAVE ANY TEACHER WHO REALLY CARES ABOUT YOU AND WHAT HAPPENS TO YOU?

0 NO, THERE IS NOT ONE SINGLE TEACHER WHO REALLY CARES ABOUT ME.

1 I DON'T KNOW -- I DON'T BELIEVE ANY OF THEM REALLY CARES ABOUT ME, BUT I'M NOT ENTIRELY SURE.

2 THEY HAVE A GENERAL INTEREST IN ME, I WOULD SAY, BUT DON'T TAKE A PARTICULAR INTEREST AS, FOR INSTANCE, A MEMBER OF THE FAMILY DOES.

3 YES, I HAVE ONE TEACHER WHO TAKES A GREAT INTEREST IN ME AND CARES WHAT HAPPENS TO ME.

4 YES, I HAVE MORE THAN ONE TEACHER WHO TAKES A GREAT INTEREST IN ME AND CARES WHAT HAPPENS TO ME.

___39. HOW MUCH OF THE SCHOOL DAY SEEMS TO BE A WASTE OF TIME TO YOU?

0 NONE OF THE SCHOOL DAY SEEMS WASTED.

1 A VERY SMALL PART OF THE DAY.

2 ABOUT 1/4 OF THE DAY.

3 ABOUT HALF OF THE DAY.

4 ABOUT 3/4 OF THE DAY.

5 MOST OF THE DAY.

Smith - Mink Scale

___40. HOW OFTEN DO YOU FEEL TIRED?

0 VERY OFTEN

1 OFTEN

2 SELDOM

3 NEVER

___41. IN YOUR SCHOOL WORK, DO YOUR PARENTS:

0 DISCOURAGE YOU?

1 ENCOURAGE YOU?

___42. DO YOU THINK YOU ARE GETTING ENOUGH OUT OF SCHOOL?

0 NO

1 SELDOM

2 USUALLY

3 YES

___43. DO YOU ATTEND THE SCHOOL BALL GAMES, DANCES, OR PARTIES?

0 NEVER

1 SELDOM

2 OFTEN

3 VERY OFTEN

Card 3
Cols. 44-48

___44. HOW WELL DO YOU LIKE YOUR TEACHERS?

0 VERY LITTLE

1 LITTLE

2 MUCH

3 VERY MUCH

___45. HOW OLD WERE YOU WHEN YOU STARTED 7th GRADE?

0 OVER 14

1 13 or 14

2 12 OR UNDER

___46. DID YOU FAIL ANY SUBJECTS LAST YEAR?

0 THREE OR MORE

1 TWO

2 ONE

3 NONE

___47. DID YOU EVER FAIL A GRADE?

0 TWO OR MORE

1 ONE

2 NONE

___48. HOW MANY DAYS WERE YOU ABSENT LAST YEAR?

0 TWENTY OR MORE

1 TEN TO NINETEEN

2 NONE TO NINE

___49. HOW MANY SCHOOL TEAMS OR CLUBS DO YOU BELONG TO?

0 NONE

1 ONE OR TWO

2 THREE OR MORE

___50. DO YOU BELONG TO ANY ORGANIZATION SUCH AS 4-H, BOY SCOUTS, CHURCH GROUPS?

0 NONE

1 ONE TO FOUR

2 FIVE OR MORE

___51. HAVE YOU EVER PARTICIPATED ACTIVELY IN ANY OF THESE GROUPS?

0 NO

1 YES

0 / 0 52,53. Total

___54. DO YOU HAVE A CARD FOR THE PUBLIC LIBRARY - SO YOU CAN TAKE BOOKS OUT?

0 NO

1 YES

Include going for more education as something R might be 'training for'.

___55. ARE YOU IN TRAINING FOR WHAT YOU REALLY WANT TO DO WHEN YOU FINISH HIGH SCHOOL?

4 YES

3 NO, I WAS NOT ABLE TO QUALIFY FOR IT.

2 NO, THE COURSE WAS FULL AND I HAD TO TAKE SOMETHING ELSE.

1 NO, I DID NOT TRY TO TAKE IT.

0 THERE IS NO TRAINING FOR THAT JOB IN THIS SCHOOL.

___56. ARE YOU IN A WORK-STUDY PROGRAM IN WHICH THE SCHOOL AND LOCAL EMPLOYER COOPERATE TO GIVE STUDENTS ON-THE-JOB TRAINING?

0 NO

1 YES

WHEN IT COMES TO MAKING IT, HOW WOULD YOU RATE THE FOLLOWING?

		NOT LIKELY TO SUCCEED	DOESN'T MAKE ANY DIFFERENCE	QUITE LIKELY TO SUCCEED	VERY LIKELY TO SUCCEED
___57.	THE SCHOOL ATHLETE	0	1	3	4
___58.	THE STUDENT WHO GETS THE HIGHEST MARKS IN SCHOOL	0	1	3	4
___59.	THE PERSON WHO IS GOOD AT MAKING THINGS (WHO CAN DO THINGS WITH HIS HANDS)	0	1	3	4
___60.	THE PERSON WITH THE BEST SENSE OF HUMOR IN THE SCHOOL.	0	1	3	4
___61.	THE PERSON WHO KNOWS BEST WHAT HE WANTS AND WORKS STEADILY TOWARD IT.	0	1	3	4
___62.	THE PERSON WHO KNOWS HOW TO GET ALONG WELL WITH OTHER PEOPLE	0	1	3	4

Card 3
Cols. 63-76

WHICH OF THE FOLLOWING WOULD YOU MOST LIKE TO BE LIKE?

		NOT AT ALL	ONLY A LITTLE	QUITE A LOT	VERY MUCH
___63.	THE SCHOOL ATHLETE	0	1	3	4
___64.	THE STUDENT WHO GETS THE HIGHEST MARKS IN SCHOOL	0	1	3	4
___65.	THE PERSON WHO IS GOOD AT MAKING THINGS (WHO CAN DO THINGS WITH HIS HANDS)	0	1	3	4
___66.	THE PERSON WITH THE BEST SENSE OF HUMOR IN THE SCHOOL	0	1	3	4
___67.	THE PERSON WHO KNOWS BEST WHAT HE WANTS AND WORKS STEADILY TOWARD IT	0	1	3	4
___68.	THE PERSON WHO KNOWS HOW TO GET ALONG WELL WITH OTHER PEOPLE	0	1	3	4

___/___/69,70. WHICH ONE OF THE ABOVE WOULD YOU MOST LIKE TO BE LIKE?

If there is one that is clearly highest, point it out. Code 69,70 with column number chosen.

WHY? ....

....

HOW WOULD YOU RATE YOURSELF ON THE FOLLOWING?

		ABOVE AVERAGE	AVERAGE	BELOW AVERAGE
___71.	DEPENDABILITY	2	1	0
___72.	IMAGINATION	2	1	0
___73.	PERSONAL APPEARANCE	2	1	0
___74.	INTELLIGENCE	2	1	0
___75.	WORKING HARD AT SCHOOL WORK	2	1	0
___76.	BEING RELAXED	2	1	0

IS THERE ANYTHING NOT LISTED ABOVE THAT YOU FEEL IS YOUR BEST QUALITY? ......

....

END CARD

Card 4
Cols. 1-7

Cols. 1-5 I.D. and Card Number

___ 6. HOW FAR DO YOU WANT TO GO IN SCHOOL?

0 I WANT TO STOP AS SOON AS I CAN.

1 I DO NOT WANT TO FINISH HIGH SCHOOL.

2 2 I WANT TO FINISH HIGH SCHOOL ONLY.

3 I WANT TO GO TO TECHNICAL, NURSING, OR BUSINESS SCHOOL AFTER HIGH SCHOOL.

4 I WANT SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.

5 I WANT TO GRADUATE FROM A 4 YEAR COLLEGE.

6 I WANT TO DO PROFESSIONAL OR GRADUATE WORK AFTER I FINISH COLLEGE.

___ 7. WHAT DO YOU THINK WILL REALLY HAPPEN?

0 I WILL PROBABLY STOP AS SOON AS I CAN.

1 I PROBABLY WILL NOT FINISH HIGH SCHOOL.

2 I WILL PROBABLY FINISH HIGH SCHOOL ONLY.

3 I WILL PROBABLY GO TO TECHNICAL, NURSING OR BUSINESS SCHOOL AFTER HIGH SCHOOL.

4 I WILL PROBABLY GET SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.

5 I WILL PROBABLY GRADUATE FROM A 4 YEAR COLLEGE.

6 I WILL PROBABLY DO PROFESSIONAL OR GRADUATE WORK AFTER I FINISH COLLEGE.

Card 4
Cols. 8-19

THESE NEXT QUESTIONS ARE ABOUT YOU AND HOW YOU FEEL ABOUT YOURSELF, YOUR FAMILY, YOUR FRIENDS, AND YOUR SCHOOL.

		STRONGLY AGREE	AGREE	CAN'T SAY; DON'T KNOW	DISAGREE	STRONGLY DISAGREE
___ 8.	YOU ARE ABLE TO DO THINGS AS WELL AS OTHER PEOPLE.	0	1	2	3	4
___ 9.	A PERSON LIKE YOU DOESN'T GET MUCH OUT OF BEING A GROUP MEMBER.	0	1	2	3	4
___10.	YOUR PARENTS PROVIDE FOR YOUR FAMILY AS WELL AS YOUR FRIENDS' PARENTS DO FOR THEIR FAMILIES.	0	1	2	3	4
___11.	YOU WISH YOU COULD HAVE MORE RESPECT FOR YOURSELF.	0	1	2	3	4
___12.	YOU AND YOUR PARENTS HAVE TROUBLE COMMUNICATING WITH EACH OTHER.	0	1	2	3	4
___13.	A LOT OF PEOPLE AROUND HERE (SCHOOL) WOULD BE VERY HAPPY IF KIDS LIKE YOU QUIT SCHOOL.	0	1	2	3	4
___14.	YOU FEEL USELESS AT TIMES.	0	1	2	3	4
___15.	IT'S NOT EASY FOR YOU TO FEEL THAT THE CROWD AT SCHOOL APPROVES OF YOU OR SUPPORTS YOU.	0	1	2	3	4
___16.	TO HAVE THE THINGS YOU WOULD LIKE IN YOUR FAMILY, YOUR FATHER WOULD NEED TO HAVE A BETTER JOB.	0	1	2	3	4
___17.	ON THE WHOLE YOU ARE SATISFIED WITH YOURSELF.	0	1	2	3	4
___18.	YOU FEEL THAT YOU MAY HAVE TO SACRIFICE SOME OF YOUR PRINCIPLES TO GET WHERE YOU WANT.	0	1	2	3	4
___19.	YOU COULD BE INVITED TO A PARTY GIVEN BY ANYONE IN YOUR CLASS AT SCHOOL.	0	1	2	3	4

Card 4
Cols. 20-31

	STRONGLY AGREE	AGREE	CAN'T SAY; DON'T KNOW	DISAGREE	STRONGLY DISAGREE
___20. THERE IS TOO MUCH EMPHASIS PUT ON GRADES TODAY AND YOU FEEL THAT YOU ARE JUSTIFIED IN CHEATING ONCE IN A WHILE.	0	1	2	3	4
___21. YOU CAN BRING YOUR FRIENDS INTO YOUR HOME WITHOUT BEING EMBARRASSED BY ITS CONDITION.	0	1	2	3	4

___22. DO YOU FEEL THAT IN THIS SCHOOL THERE IS A GROUP OF KIDS THAT ARE BETTER OFF THAN YOU ARE? ("Better off" in the economic sense)

0 NO

1 YES

___23. IS THERE ANY GROUP AT SCHOOL THAT YOU FEEL YOU COULD NOT ASSOCIATE WITH?

0 NO

1 YES

IF YES, WHY DO YOU FEEL THIS WAY ABOUT THIS GROUP?

	NO	YES
___24. THEY HAVE BETTER CLOTHES.	0	1
___25. YOU GO OUT FOR TEAM SPORTS AND YOUR FRIENDS ARE MOSTLY ATHLETES.	0	1
___26. YOU WORK AFTER SCHOOL AND THEY DON'T.	0	1
___27. YOUR INTERESTS ARE DIFFERENT FROM THEIRS.	0	1
___28. YOU HAVE MORE THAN THEY DO.	0	1
___29. YOU EXPECT TO GO ON TO FURTHER SCHOOLING AND THEY DON'T.	0	1

If R answers no on 23, code 24-29 with "9".

___30. IF YOU HAD A CHOICE, WOULD YOU RATHER:

0 BE FIVE YEARS YOUNGER THAN YOU ARE?

1 STAY THE AGE YOU ARE NOW?

2 BE FIVE YEARS OLDER THAN YOU ARE?

0 31. For future use.

Card 4
Cols. 32-61

0 / 0 32,33. Total number 1

0 / 0 34,35. Total number 2

0 / 0 36,37. Total number 3

0 / 0 / 0 38-40. For future use

0 / 0 / 0 41-43. For future use

THINK OF YOUR GROUP OF FRIENDS - THE ONES YOU SEE OFTEN AND GO AROUND WITH.

		NONE	VERY FEW	ABOUT HALF	MOST	ALL
___44.	HOW MANY OF THEM ENJOY BEING IN SCHOOL?	0	1	2	3	4
___45.	HOW MANY OF THEM ARE OFTEN ABSENT?	0	1	2	3	4
___46.	HOW MANY OF THEM BELONG TO CLUBS, TEAMS, OR SCHOOL ACTIVITIES?	0	1	2	3	4
___47.	HOW MANY OF THEM LIKE TO READ BOOKS?	0	1	2	3	4
___48.	HOW MANY OF THEM SOMETIMES GET INTO RATHER SERIOUS TROUBLE?	0	1	2	3	4
___49.	HOW MANY OF THEM WOULD LIKE TO GET OUT OF SCHOOL AS SOON AS POSSIBLE?	0	1	2	3	4

0 / 0 50,51. Total number 1

0 / 0 52,53. Total number 2

0 / 0 54,55. Difference

WHY DO YOU THINK KIDS BREAK SCHOOL RULES?

		NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN	ALWAYS
___56.	IT'S BECAUSE THEY'RE IRRESPONSIBLE.	0	1	2	3	4
___57.	IT'S BECAUSE THEY JUST WANT TO HAVE SOME FUN.	0	1	2	3	4
___58.	IT'S BECAUSE THEY WANT TO GET IN WITH A CERTAIN GROUP.	0	1	2	3	4
___59.	IT'S BECAUSE THEY REALLY DON'T APPRECIATE SCHOOL.	0	1	2	3	4
___60.	IT'S BECAUSE THEY DON'T KNOW HOW NECESSARY SOME RULES ARE.	0	1	2	3	4
___61.	IT'S BECAUSE THEY'RE MAD AT THE SYSTEM.	0	1	2	3	4

Card 4-5
Cols. 62-15

0 / 0 62,63. Total number 1

0 / 0 64,65. Total number 2

0 / 0 66,67. Difference

___68. HOW OFTEN WOULD YOU SAY YOU MAKE PEOPLE LAUGH AT WHAT YOU DO?

NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN
0	1	3	4

___69. HOW OFTEN WOULD YOU LIKE TO MAKE PEOPLE LAUGH AT WHAT YOU DO?

MUCH LESS	A LITTLE LESS	JUST THE SAME AMOUNT I NOW DO	A LITTLE MORE	MUCH MORE
0	1	2	3	4

0 70. Difference

JUST HOW IMPORTANT IS EACH OF THESE TO YOU?

		DEFINITELY NOT IMPORTANT	PROBABLY NOT IMPORTANT	PROBABLY IMPORTANT	DEFINITELY IMPORTANT
___71.	BEING LIKED A LOT BY OTHER STUDENTS	0	1	3	4
___72.	HAVING CLOTHES YOU LIKE	0	1	3	4
___73.	BEING RESPECTFULL OF ADULTS	0	1	3	4
___74.	DOING WHAT YOU THINK IS BEST NO MATTER WHAT ANYBODY THINKS	0	1	3	4
___75.	BEING A LEADER	0	1	3	4
___76.	HAVING LOTS OF FUN	0	1	3	4

Card 5 Cols. 1-5 I.D. and Card numbers

___ 6.	BEING GOOD IN SPORTS	0	1	3	4
___ 7.	BEING AN INDIVIDUAL DIFFERENT FROM OTHERS	0	1	3	4
___ 8.	TAKING PART IN SCHOOL ACTIVITIES	0	1	3	4
___ 9.	DOING THINGS WITH THE REST OF THE FAMILY	0	1	3	4

WHICH OF THOSE YOU HAVE RATED IMPORTANT ARE THE THREE MOST IMPORTANT TO YOU?

__/___10,11. First mentioned ....

__/___12,13. Second mentioned....................................

__/___14,15. Third mentioned ....

If R chooses 7, code 07, etc.

Card 5
Cols. 16-45

THE FOLLOWING ARE TWO QUESTIONS ABOUT HOW YOU USE YOUR TIME.

IN THE AVERAGE WEEK, HOW MANY HOURS DO YOU SPEND:

___/___16,17. IN CLUBS, AT SCHOOL?
___/___18,19. IN CLUBS, OUT OF SCHOOL?
___/___20,21. IN CHURCH ACTIVITIES?
___/___22,23. ON JOBS AT HOME?
___/___24,25. READING FOR PLEASURE?
___/___26,27. TAKING PART IN SOCIAL ACTION?
___/___28,29. ON PAYING JOBS, OUTSIDE OF YOUR HOME?
___/___30,31. GOING OUT WITH A DATE OR WITH A CROWD?

Code actual number of hours.

ON THE AVERAGE DAY, HOW MANY HOURS DO YOU SPEND:

___32. WATCHING TV?
___33. TAKING PART IN SPORTS ACTIVITIES?
___34. ON HOMEWORK?

Code actual number of hours.

HOW MUCH WOULD YOU SAY THAT YOU ARE LIKE THIS?

	NEVER	HARDLY EVER	OFTEN	ALWAYS
___35. YOU CHOOSE TO DO THINGS WITH OTHERS, RATHER THAN TO BE BY YOURSELF.	0	1	3	4
___36. YOU KEEP YOUR FEELINGS TO YOURSELF.	0	1	3	4
___37. YOU TRY TO DO BETTER THAN OTHERS.	0	1	3	4
___38. YOU HAVE A MIND OF YOUR OWN WHEN YOU ARE WITH YOUR FRIENDS.	0	1	3	4
___39. YOU ARE WILLING TO DO AS GROWNUPS WANT YOU TO DO.	0	1	3	4
___40. YOU ARE LIKELY TO TRY OUT SOMETHING NEW AND DIFFERENT.	0	1	3	4
___41. YOU ARE WILLING TO TAKE A STAND ON SOMETHING YOU THINK IS IMPORTANT.	0	1	3	4

0 / 0 /42,43. Total number 1 Activity - Passivity Score
0 / 0 /44,45. Total number 2 Inner vs. Outer - Directedness

Card 5
Cols. 46-76

NOW THINK OF HOW YOU WOULD LIKE TO BE. WOULD YOU LIKE TO BE:

		NEVER	HARDLY EVER	OFTEN	ALWAYS
___46.	CHOOSING TO DO THINGS WITH OTHERS RATHER THAN BE BY YOURSELF.	0	1	3	4
___47.	KEEPING YOUR FEELINGS TO YOURSELF.	0	1	3	4
___48.	TRYING TO DO BETTER THAN OTHERS.	0	1	3	4
___49.	HAVING A MIND OF YOUR OWN WHEN YOU ARE WITH FRIENDS.	0	1	3	4
___50.	WILLING TO DO AS GROWNUPS WANT YOU TO DO.	0	1	3	4
___51.	LIKELY TO TRY OUT SOMETHING NEW AND DIFFERENT.	0	1	3	4
___52.	WILLING TO TAKE A STAND ON SOMETHING YOU THINK IS IMPORTANT.	0	1	3	4

0 / 0 /53,54. Total number 1 Activity - Passivity Score

0 / 0 /55,56. Total number 2 Inner vs. Outer - Directedness Score

0 / 0 /57,58. Difference number 1

0 / 0 /59,60. Difference number 2

ABOUT HOW MANY DAYS WERE YOU ABSENT FROM SCHOOL THIS YEAR BECAUSE OF:

___/___/61,62. BEING IN THE HOSPITAL?

___/___/63,64. OTHER ILLNESS? (not hospitalized)

___/___/65,66. ILLNESS OF OTHERS IN THE FAMILY?

___/___/67,68. HAVING TO HELP AT HOME?
(other than when caused by illness)

If R says that any absence has been caused by "BEING IN THE HOSPITAL", probe for cause and record below. If more than 3 days' absence has been caused by "OTHER ILLNESS" or "ILLNESS OF OTHERS IN THE FAMILY", try to get details and record below.

___/___/69,70. GOING PLACES WITH PARENTS?

___/___/71,72. YOUR FRIENDS STAYING OUT OF SCHOOL?

___/___/73,74. YOUR JUST NOT WANTING TO GO TO SCHOOL?

0 / 0 /75,76. Total

Code actual number of days.

END CARD

Card 6
Cols. 1-26

Cols. 1-5 I.D. and Card Numbers

HERE ARE SOME MORE QUESTIONS ABOUT YOU AND YOUR MOTHER.

		NEVER	HARDLY EVER	SOMETIMES	FAIRLY OFTEN	VERY OFTEN
___ 6.	YOUR MOTHER MAKES YOU FEEL THAT SHE IS THERE IF YOU NEED HER.	0	1	2	3	4
___ 7.	YOUR MOTHER PUNISHES YOU BY NOT LETTING YOU DO WHAT YOU WANT.	0	1	2	3	4
___ 8.	YOUR MOTHER KEEPS AFTER YOU TO DO BETTER THAN OTHER CHILDREN.	0	1	2	3	4
___ 9.	WHEN YOUR MOTHER PUNISHES YOU, SHE EXPLAINS WHY.	0	1	2	3	4
___10.	YOUR MOTHER SLAPS YOU.	0	1	2	3	4
___11.	WHEN YOU DO SOMETHING YOUR MOTHER DOESN'T LIKE, YOU KNOW EXACTLY WHAT TO EXPECT OF HER.	0	1	2	3	4
___12.	YOUR MOTHER TEACHES YOU THINGS YOU WANT TO LEARN.	0	1	2	3	4
___13.	YOUR MOTHER NAGS AT YOU.	0	1	2	3	4
___14.	YOUR MOTHER KEEPS AFTER YOU TO DO WELL IN SCHOOL.	0	1	2	3	4
___15.	WHEN YOUR MOTHER WANTS YOU TO DO SOMETHING, SHE EXPLAINS WHY.	0	1	2	3	4
___16.	IF YOU DO SOMETHING YOUR MOTHER DOES NOT LIKE, SHE ACTS COLD AND UNFRIENDLY.	0	1	2	3	4
___17.	YOU KNOW WHAT YOUR MOTHER EXPECTS OF YOU, AND HOW SHE WANTS YOU TO BEHAVE.	0	1	2	3	4

0 / 0 /18,19. Total Support

0 / 0 /20,21. Total Punishment

0 / 0 /22,23. Total Control

0 / 0 /24,25. Total Achievement Pressure

___26. IN GENERAL, HOW ARE MOST DECISIONS MADE BETWEEN YOU AND YOUR MOTHER?

0 MY MOTHER JUST TELLS ME WHAT TO DO.

1 MY MOTHER LISTENS TO ME, BUT MAKES THE DECISION HERSELF.

2 I HAVE CONSIDERABLE OPPORTUNITY TO MAKE MY OWN DECISIONS, BUT MY MOTHER HAS THE FINAL WORD.

3 MY OPINIONS ARE AS IMPORTANT AS MY MOTHER'S IN DECIDING WHAT I SHOULD DO.
4 I CAN MAKE MY OWN DECISION, BUT MY MOTHER WOULD LIKE ME TO CONSIDER HERS.
5 I CAN DO WHAT I WANT REGARDLESS OF WHAT MY MOTHER THINKS.
6 MY MOTHER DOESN'T CARE WHAT I DO.

NOW YOU WILL SEE A LIST OF ITEMS WHICH ARE OFTEN "SORE SPOTS" BETWEEN TEENAGERS AND THEIR MOTHERS. LOOK AT EACH ONE CAREFULLY AND THEN TELL ME WHETHER THIS IS SOMETHING WHICH YOU AND YOUR MOTHER DISAGREE ABOUT.

	NEVER	HARDLY EVER	SOMETIMES	FAIRLY OFTEN	VERY OFTEN
___27. THE TIME YOU COME IN AT NIGHT	0	1	2	3	4
___28. THE KIDS YOU RUN AROUND WITH	0	1	2	3	4
___29. YOUR GRADES IN SCHOOL	0	1	2	3	4
___30. THE PLACES YOU GO WHEN YOU GO OUT	0	1	2	3	4
___31. DROPPING OUT OF SCHOOL	0	1	2	3	4
___32. HELPING HER AROUND THE HOUSE WITH THE YOUNGER KIDS, DOING DISHES, THAT SORT OF THING	0	1	2	3	4

0 / 0 /33,34. Total

We are interested in knowing about the parent's rules for the children.

SOME PARENTS HAVE RULES FOR THEIR CHILDREN, WHILE OTHERS DON'T. DO YOUR PARENTS HAVE RULES FOR YOU ABOUT THE FOLLOWING?

	THERE ARE DEFINITE RULES ABOUT THIS WHICH I CAN'T GET AROUND WITHOUT GETTING INTO TROUBLE	THERE ARE SOME RULES ABOUT THIS WHICH I CAN GET AROUND WITHOUT GETTING INTO TROUBLE	THERE ARE NO RULES ABOUT THIS
___35. TIME FOR BEING IN AT NIGHT	2	1	0
___36. TIME SPENT WATCHING TV	2	1	0
___37. TIME SPENT ON HOMEWORK	2	1	0
___38. TIME SPENT ON THE TELEPHONE	2	1	0
___39. YOUR DOING JOBS AROUND THE HOUSE	2	1	0

0 / 0 /40,41. Total

Card 6
Cols. 42-59

HOW IMPORTANT DOES YOUR MOTHER THINK EACH OF THESE SHOULD BE TO YOU?

		DEFINITELY NOT IMPORTANT	PROBABLY NOT IMPORTANT	PROBABLY IMPORTANT	DEFINITELY IMPORTANT
___42.	BEING LIKED A LOT BY OTHER STUDENTS	0	1	3	4
___43.	HAVING CLOTHES YOU LIKE	0	1	3	4
___44.	BEING RESPECTFUL OF ADULTS	0	1	3	4
___45.	DOING WHAT YOU THINK IS BEST NO MATTER WHAT ANYBODY THINKS	0	1	3	4
___46.	BEING A LEADER	0	1	3	4
___47.	HAVING LOTS OF FUN	0	1	3	4
___48.	BEING GOOD IN SPORTS	0	1	3	4
___49.	BEING AN INDIVIDUAL DIFFERENT FROM OTHERS	0	1	3	4
___50.	TAKING PART IN SCHOOL ACTIVITIES	0	1	3	4
___51.	DOING THINGS WITH THE REST OF THE FAMILY	0	1	3	4

0 / 0 /52,53. Total Difference

WHO DO YOU FEEL SHOULD HAVE MORE SAY IN MAKING DECISIONS IN A FAMILY?

0 THE MOTHER SHOULD HAVE ALL OF THE SAY IN THE DECISION

1 THE MOTHER SHOULD HAVE MORE SAY THAN THE FATHER

2 THE MOTHER AND THE FATHER SHOULD EACH HAVE THE SAME AMOUNT OF SAY

3 THE FATHER SHOULD HAVE MORE SAY THAN THE MOTHER

4 THE FATHER SHOULD HAVE ALL OF THE SAY IN THE DECISION

___54.	ABOUT YOUR DOING HOUSEHOLD CHORES	0	1	2	3	4
___55.	ABOUT MANAGING THE FAMILY MONEY	0	1	2	3	4
___56.	ABOUT RULES FOR WHAT YOU MAY OR MAY NOT DO	0	1	2	3	4
___57.	ABOUT WHAT FOOD TO PREPARE FOR THE FAMILY	0	1	2	3	4

0 / 0 /58,59. Total

THESE ARE SOME QUESTIONS ABOUT YOU AND YOUR BROTHER OR SISTER IN THE STUDY.

Supply name of sibling in the study in the space below.

HOW OFTEN WOULD YOU SAY THAT YOU AND ________ DO THE FOLLOWING THINGS?

		NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN
___60.	TALK ABOUT PROBLEMS EITHER OF YOU HAVE	0	1	3	4
___61.	PLAY GAMES OR SPORTS TOGETHER	0	1	3	4
___62.	WORK AROUND THE HOUSE TOGETHER	0	1	3	4
___63.	DO THINGS TOGETHER WITH SOME OF THE SAME FRIENDS	0	1	3	4
___64.	HELP EACH OTHER WITH HOMEWORK	0	1	3	4
___65.	ARGUE WITH EACH OTHER	0	1	3	4

0 / 0 /66,67. Total

Supply the name of sibling in the study in the spaces below.

CONCERNING YOU AND ________, WHICH OF YOU IS BETTER IN THE FOLLOWING WAYS?

		________ IS BETTER	I AM BETTER
___68.	GETTING ALONG WITH PEOPLE	0	1
___69.	IN SCHOOL WORK	0	1
___70.	BEING GOOD AT SPORTS	0	1
___71.	GETTING PRAISE FROM YOUR MOTHER	0	1

0 /72. Total

Supply name of sibling in the study in the spaces below.

HOW DO YOU FEEL ABOUT THE FOLLOWING STATEMENTS?

		NOT TRUE AT ALL	SOMETIMES TRUE	ALMOST ALWAYS TRUE	ALWAYS TRUE
___73.	YOU HAVE TO TRY TO DO BETTER THAN ______ IN YOUR SCHOOL WORK	0	1	2	3
___74.	YOU HAVE TO COMPETE WITH ______ FOR YOUR PARENTS' ATTENTION	0	1	2	3
___75.	PEOPLE THAT KNOW ________ ALWAYS EXPECT YOU TO BE LIKE HIM OR HER	0	1	2	3

0 /76. Total END CARD

Card 7
Cols. 1-16

Cols. 1-5 I.D. and Card Numbers

PLEASE ANSWER THE FOLLOWING, THINKING OF YOUR MOTHER AND ______________
(YOUR BROTHER OR SISTER IN THE STUDY)

		NEVER	HARDLY EVER	SOMETIMES	FAIRLY OFTEN	VERY OFTEN
___ 6.	YOUR MOTHER MAKES ______ FEEL THAT SHE IS THERE WHEN ______ NEEDS HER.	0	1	2	3	4
___ 7.	YOUR MOTHER PUNISHES ______ BY NOT LETTING (HIM)(HER) DO WHAT (HE)(SHE) WANTS.	0	1	2	3	4
___ 8.	______ KNOWS WHAT YOUR MOTHER EXPECTS OF (HIM)(HER), AND HOW YOUR MOTHER WANTS (HIM)(HER) TO BEHAVE.	0	1	2	3	4
___ 9.	YOUR MOTHER KEEPS AFTER ______ TO DO WELL IN SCHOOL.	0	1	2	3	4
___10.	YOUR MOTHER NAGS AT ______.	0	1	2	3	4
___11.	WHEN YOUR MOTHER WANTS ______ TO DO SOMETHING, YOUR MOTHER EXPLAINS WHY.	0	1	2	3	4
0 12.	Total S					
0 13.	Total P					
0 14.	Total C					
0 15.	Total A					

___16. HOW OFTEN IS YOUR MOTHER ON THE SIDE OF ______ AS OPPOSED TO YOUR SIDE?

0 NEVER
1 HARDLY EVER
3 FAIRLY OFTEN
4 VERY OFTEN

Replace blank with name of the sibling in the study.

Card 7
Cols. 17-32

Supply the name of R's brother or sister in the study in the spaces below.

HOW MUCH WOULD YOU SAY THAT ____________________ IS LIKE THIS?

		NEVER	HARDLY EVER	OFTEN	ALWAYS
__17.	...... CHOOSES TO DO THINGS WITH OTHERS RATHER THAN BE BY HIMSELF/HERSELF.	0	1	3	4
__18.	...... KEEPS HIS/HER FEELINGS TO HIMSELF/HERSELF.	0	1	3	4
__19.	...... TRIES TO DO BETTER THAN OTHERS.	0	1	3	4
__20.	...... HAS A MIND OF HIS/HER OWN WHEN ...... IS WITH FRIENDS.	0	1	3	4
__21.	...... IS WILLING TO DO AS GROWNUPS WANT HIM/HER TO DO.	0	1	3	4
__22.	...... IS LIKELY TO TRY OUT SOMETHING NEW AND DIFFERENT.	0	1	3	4
__23.	...... IS WILLING TO TAKE A STAND ON SOMETHING HE/SHE THINKS IS IMPORTANT.	0	1	3	4

0 / 0 /24,25. Total number 1 Activity - Passivity Score

0 / 0 /26,27. Total number 2 Inner vs. Outer Directedness

0 / 0 /28,29. Difference number 1

0 / 0 /30,31. Difference number 2

__32. HOW GOOD A STUDENT DOES YOUR MOTHER WANT YOU TO BE?

5 ONE OF THE BEST STUDENTS IN MY CLASS.

4 ABOVE THE MIDDLE OF THE CLASS.

3 ABOUT AVERAGE.

2 GOOD ENOUGH TO GET BY.

1 IT DOESN'T MATTER AS LONG AS I DO AS WELL AS I CAN.

0 SHE DOESN'T CARE.

___33. HOW MUCH EDUCATION DOES YOUR MOTHER WANT YOU TO HAVE?

0 SHE WANTS ME TO STOP GOING TO SCHOOL AS SOON AS I CAN.

1 SHE DOESN'T CARE IF I FINISH HIGH SCHOOL OR NOT.

2 SHE WANTS ME TO FINISH HIGH SCHOOL ONLY.

3 SHE WANTS ME TO GO TO TECHNICAL, NURSING, OR BUSINESS SCHOOL AFTER HIGH SCHOOL.

4 SHE WANTS ME TO GET SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.

5 SHE WANTS ME TO GRADUATE FROM A 4-YEAR COLLEGE.

6 SHE WANTS ME TO GO TO PROFESSIONAL OR GRADUATE SCHOOL AFTER COLLEGE.

__/___/34,35. HOW MUCH EDUCATION DOES YOUR MOTHER HAVE?

Code the actual number of years of school, e.g., completion of grammar school "06", completion of high school "12", two years of college "14", one year of business school "13". Code a Masters' degree as "18", and a Ph.D. "22". If R is not sure, take his best guess. (These instructions also apply to father's education on page 34, 34a, or 34b.)

The questions on the next two pages should be answered by R if any one of these three conditions is completely satisfied.

a) If R lives with his real father (page 2, number 25).

OR

b) If R lives with his stepfather, foster father, (or someone else who holds a husband-like relationship to his mother), grandfather, or uncle (top of page 2) and says that this person is serving as his father (page 2, number 26).

OR

c) If R says that his real father is serving as his father, (page 2, number 26) even though he is not living at home, and says that he has seen his father in the last month. (page 2c, number 53).

If none of these conditions is satisfied, omit page 32 and 33, code all open spaces "9", and continue on page 34.

Card 7
Cols. 36 - 47

THE FOLLOWING ARE SOME QUESTIONS ABOUT YOUR FATHER, STEPFATHER, UNCLE, OR GRANDFATHER.

	NEVER	HARDLY EVER	SOMETIMES	FAIRLY OFTEN	VERY OFTEN
___36. HE MAKES YOU FEEL THAT HE IS THERE IF YOU NEED HIM.	0	1	2	3	4
___37. HE PUNISHES YOU BY NOT LETTING YOU DO WHAT YOU WANT.	0	1	2	3	4
___38. HE KEEPS AFTER YOU TO DO BETTER THAN OTHER CHILDREN.	0	1	2	3	4
___39. WHEN HE PUNISHES YOU, HE EXPLAINS WHY.	0	1	2	3	4
___40. HE SLAPS YOU.	0	1	2	3	4
___41. WHEN YOU DO SOMETHING HE DOESN'T LIKE, YOU KNOW EXACTLY WHAT TO EXPECT OF HIM.	0	1	2	3	4
___42. HE TEACHES YOU THINGS YOU WANT TO LEARN.	0	1	2	3	4
___43. HE NAGS AT YOU.	0	1	2	3	4
___44. HE KEEPS AFTER YOU TO DO WELL IN SCHOOL	0	1	2	3	4
___45. WHEN HE WANTS YOU TO DO SOMETHING, HE EXPLAINS WHY.	0	1	2	3	4
___46. IF YOU DO SOMETHING HE DOESN'T LIKE, HE ACTS COLD AND UNFRIENDLY.	0	1	2	3	4
___47. YOU KNOW WHAT HE EXPECTS OF YOU, AND HOW HE WANTS YOU TO BEHAVE.	0	1	2	3	4

Card 7
Cols. 48-64

_0_/_0_/48,49. Total Support

_0_/_0_/50,51. Total Punishment

_0_/_0_/52,53. Total Control

_0_/_0_/54,55. Total Achievement Pressure

_0_/_0_/56,57. For future use

_0_/_0_/58,59. For future use

_0_/_0_/60,61. For future use

_0_/_0_/62,63. For future use

___64. IN GENERAL, HOW ARE MOST DECISIONS MADE BETWEEN YOU AND YOUR FATHER (OR PERSON ACTING AS FATHER)?

0 HE JUST TELLS ME WHAT TO DO.

1 HE LISTENS TO ME, BUT MAKES THE DECISION HIMSELF.

2 I HAVE CONSIDERABLE OPPORTUNITY TO MAKE MY OWN DECISIONS, BUT MY FATHER HAS THE FINAL WORD.

3 MY OPINIONS ARE AS IMPORTANT AS HIS IN DECIDING WHAT I SHOULD DO.

4 I CAN MAKE MY OWN DECISIONS, BUT HE WOULD LIKE ME TO CONSIDER HIS.

5 I CAN DO WHAT I WANT REGARDLESS OF WHAT HE THINKS.

6 MY FATHER DOESN'T CARE WHAT I DO.

The questions on this page should be asked of R about his real father if (1) he is living and (2) R has seen him as recently as a year ago (page 2b, number 53). Otherwise, code "9".

___65. HOW GOOD A STUDENT DOES YOUR FATHER WANT YOU TO BE?

5 ONE OF THE BEST STUDENTS IN MY CLASS.

4 ABOVE THE MIDDLE OF THE CLASS.

3 ABOUT AVERAGE.

2 GOOD ENOUGH TO GET BY.

1 IT DOESN'T MATTER AS LONG AS I DO AS WELL AS I CAN.

0 HE DOESN'T CARE.

___66. HOW MUCH EDUCATION DOES YOUR FATHER WANT YOU TO HAVE?

0 HE WANTS ME TO STOP GOING TO SCHOOL AS SOON AS I CAN.

1 HE DOESN'T CARE IF I FINISH HIGH SCHOOL OR NOT.

2 HE WANTS ME TO FINISH HIGH SCHOOL ONLY.

3 HE WANTS ME TO GO TO TECHNICAL, NURSING, OR BUSINESS SCHOOL AFTER HIGH SCHOOL.

4 HE WANTS ME TO GET SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.

5 HE WANTS ME TO GRADUATE FROM A 4-YEAR COLLEGE.

6 HE WANTS ME TO GO TO PROFESSIONAL OR GRADUATE SCHOOL AFTER COLLEGE.

___/___/67,68. HOW MUCH EDUCATION DOES YOUR FATHER HAVE?

Code actual number of years.

The questions on this page should be asked of R if he is living with a stepfather or foster father, or someone else who holds a husband-like relationship to his mother. (page 2, number 26).

Otherwise, code "9".

__69. HOW GOOD A STUDENT DOES ______________________ WANT YOU TO BE?
(YOUR STEPFATHER OR FOSTER FATHER)

5 ONE OF THE BEST IN THE CLASS

4 ABOVE THE MIDDLE OF THE CLASS.

3 ABOUT AVERAGE.

2 GOOD ENOUGH TO GET BY.

1 IT DOESN'T MATTER AS LONG AS I DO AS WELL AS I CAN.

0 HE DOESN'T CARE.

__70. HOW MUCH EDUCATION DOES ______________________ WANT YOU TO HAVE?
(YOUR STEPFATHER OR FOSTER FATHER)

0 HE WANTS ME TO STOP GOING TO SCHOOL AS SOON AS I CAN.

1 HE DOESN'T CARE IF I FINISH HIGH SCHOOL OR NOT.

2 HE WANTS ME TO FINISH HIGH SCHOOL ONLY.

3 HE WANTS ME TO GO TO TECHNICAL, NURSING, OR BUSINESS SCHOOL AFTER HIGH SCHOOL.

4 HE WANTS ME TO GET SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.

5 HE WANTS ME TO GRADUATE FROM A 4-YEAR COLLEGE.

6 HE WANTS ME TO GO TO PROFESSIONAL OR GRADUATE SCHOOL AFTER COLLEGE.

__/__/71,72. HOW MUCH EDUCATION DOES ______________________ HAVE?
(YOUR STEPFATHER OR FOSTER FATHER)

Code actual number of years.

Card 7
Cols. 73-76

The questions on this page should be asked of R if he is living with a grandfather or uncle. (page 2, number 26).

Otherwise, code "9".

___73. HOW GOOD A STUDENT DOES ______________________ WANT YOU TO BE?
(YOUR UNCLE OR GRANDFATHER)

5 ONE OF THE BEST IN THE CLASS.

4 ABOVE THE MIDDLE OF THE CLASS.

3 ABOUT AVERAGE.

2 GOOD ENOUGH TO GET BY.

1 IT DOESN'T MATTER AS LONG AS I DO AS WELL AS I CAN.

0 HE DOESN'T CARE.

___74. HOW MUCH EDUCATION DOES ______________________ WANT YOU TO HAVE?
(YOUR UNCLE OR GRANDFATHER)

0 HE WANTS ME TO STOP GOING TO SCHOOL AS SOON AS I CAN.

1 HE DOESN'T CARE IF I FINISH HIGH SCHOOL OR NOT.

2 HE WANTS ME TO FINISH HIGH SCHOOL ONLY.

3 HE WANTS ME TO GO TO TECHNICAL, NURSING, OR BUSINESS SCHOOL AFTER HIGH SCHOOL.

4 HE WANTS ME TO GET SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.

5 HE WANTS ME TO GRADUATE FROM A 4-YEAR COLLEGE.

6 HE WANTS ME TO GO TO PROFESSIONAL OR GRADUATE SCHOOL AFTER COLLEGE.

___/___/75,76. HOW MUCH EDUCATION DOES ______________________ HAVE?
(YOUR UNCLE OR GRANDFATHER)

Code actual number of years.

END CARD 7

Card 8
Cols. 1-17

Cols. 1-5 I.D. and Card Numbers

When R says he talks to someone other than his parents about his school work, OFTEN or FAIRLY OFTEN, show the name of that person.

HOW OFTEN DO YOU TALK TO THE FOLLOWING PEOPLE ABOUT YOUR SCHOOL WORK?

		NEVER	HARDLY EVER	FAIRLY OFTEN	OFTEN
___ 6.	WITH YOUR MOTHER	0	1	3	4
___ 7.	WITH YOUR FATHER (real father)	0	1	3	4
___ 8.	WITH YOUR STEPFATHER OR FOSTER FATHER	0	1	3	4
___ 9.	WITH YOUR ____________________ (uncle or grandfather who acts as father)	0	1	3	4
___10.	WITH YOUR BROTHER** ________________	0	1	3	4
___11.	WITH YOUR SISTER** ________________	0	1	3	4
___12.	WITH A FRIEND*(MALE) ____________	0	1	3	4
___13.	WITH A FRIEND*(FEMALE) ____________	0	1	3	4
___14.	WITH A TEACHER (MALE) ____________	0	1	3	4
___15.	WITH A TEACHER (FEMALE) ____________	0	1	3	4
___16.	WITH ANOTHER ADULT (MALE) *WHO? ________ ____________________	0	1	3	4
___17.	WITH ANOTHER ADULT (FEMALE)*WHO? ________ ____________________	0	1	3	4

* It is important to find out the relationship and age of this person. We will define adult as a person 20 or over.

** Brother or sister need not be sibling in the study.

Card 8
Cols. 18-29

> When R says he talks to someone other than his parents about world affairs OFTEN or FAIRLY OFTEN, show the name of that person.

HOW OFTEN DO YOU TALK WITH THE FOLLOWING PEOPLE ABOUT WORLD AFFAIRS?

> The war in Vietnam, pollution, over population, etc.

		NEVER	HARDLY EVER	FAIRLY OFTEN	OFTEN
__18.	WITH YOUR MOTHER	0	1	3	4
__19.	WITH YOUR FATHER (real father)	0	1	3	4
__20.	WITH YOUR STEPFATHER OR FOSTER FATHER	0	1	3	4
___21.	WITH YOUR ______________________ (uncle or grandfather who acts as father)	0	1	3	4
__22.	WITH YOUR BROTHER**	0	1	3	4
__23.	WITH YOUR SISTER**	0	1	3	4
__24.	WITH A FRIEND (MALE)*	0	1	3	4
__25.	WITH A FRIEND (FEMALE)*	0	1	3	4
__26.	WITH A TEACHER (MALE)	0	1	3	4
__27.	WITH A TEACHER (FEMALE)	0	1	3	4
__28.	WITH ANOTHER ADULT (MALE)* WHO?	0	1	3	4
__29.	WITH ANOTHER ADULT (FEMALE)* WHO?	0	1	3	4

* It is important to find out the relationship and age of this person. We will define adult as a person 20 or over.

** Brother or sister need not be sibling in the study.

Card 8
Cols. 30-41

When R says he talks to someone other than his parents about anything else important to him OFTEN or FAIRLY OFTEN, show the name of that person

HOW OFTEN DO YOU TALK WITH THE FOLLOWING PEOPLE ABOUT ANYTHING ELSE WHICH IS IMPORTANT TO YOU? SPECIFY ______________________________

		NEVER	HARDLY EVER	FAIRLY OFTEN	OFTEN
___30.	WITH YOUR MOTHER	0	1	3	4
___31.	WITH YOUR FATHER (real father)	0	1	3	4
___32.	WITH YOUR STEPFATHER OR FOSTER FATHER	0	1	3	4
___33.	WITH YOUR ______________________ (uncle or grandfather who acts as father)	0	1	3	4
___34.	WITH YOUR BROTHER ** ______________	0	1	3	4
___35.	WITH YOUR SISTER ** ______________	0	1	3	4
___36.	WITH A FRIEND (MALE)* ______________	0	1	3	4
___37.	WITH A FRIEND (FEMALE)* ______________	0	1	3	4
___38.	WITH A TEACHER (MALE) ______________	0	1	3	4
___39.	WITH A TEACHER (FEMALE) ______________	0	1	3	4
___40.	WITH ANOTHER ADULT (MALE)* WHO? __________ ______________________	0	1	3	4
___41.	WITH ANOTHER ADULT (FEMALE)* WHO? __________ ______________________	0	1	3	4

* It is important to find out the relationship and age of this person. We will define adult as a person 20 or over.

** Brother or sister need not be sibling in the study.

Card 8
Cols. 42-54

Code actual number. If 8 or more times, code 8.

___42. ABOUT HOW MANY TIMES DURING THE PAST YEAR HAVE YOU TRAVELLED WITH YOUR FAMILY?

Code actual number. If 8 or more times, code 8.

ABOUT HOW MANY TIMES DURING THE LAST TWO MONTHS, HAVE YOU GONE TO A MUSEUM, OR A CONCERT OR A PLAY

___43. WITH YOUR MOTHER?

___44. WITH YOUR FATHER?

___45. WITH YOUR STEPFATHER OR FOSTER FATHER?

It is important to identify the relationship and approximate age of "ANOTHER ADULT"s mentioned here by R.

___46. WITH YOUR ________________________________?
(uncle or grandfather who acts as father)

___47. WITH ANOTHER ADULT* (MALE)? WHO? ________________________________

___48. WITH ANOTHER ADULT* (FEMALE)? WHO? ________________________________

Code actual number. If 8 or more times, code 8.

ABOUT HOW MANY TIMES WITHIN THE LAST MONTH HAVE YOU GONE BOWLING, PLAYED BALL, OR PARTICIPATED IN ANY SUCH ACTIVITIES

___49. WITH YOUR MOTHER?

___50. WITH YOUR FATHER?

___51. WITH YOUR STEPFATHER OR FOSTER FATHER?

It is important to identify the relationship and approximate age of "ANOTHER ADULT"s mentioned here by R.

___52. WITH YOUR ________________________________?
(uncle or grandfather who acts as father)

___53. WITH ANOTHER ADULT* (MALE)? WHO? ________________________________

___54. WITH ANOTHER ADULT* (FEMALE)? WHO? ________________________________

*We will define an adult as a person 20 or over.

Code actual number. If 8 or more times, code 8.

ABOUT HOW MANY TIMES WITHIN THE LAST MONTH HAS SOME ADULT GONE WITH YOU TO SOMEPLACE ELSE WHERE YOU WANTED TO GO? SPECIFY WHERE ______________

____

___55. WITH YOUR MOTHER

___56. WITH YOUR FATHER (real father)

___57. WITH YOUR STEPFATHER OR FOSTER FATHER

___58. WITH YOUR ______________________
(uncle or grandfather who acts as father)

___59. WITH ANOTHER ADULT (MALE)*WHO? ______________________

____

___60. WITH ANOTHER ADULT (FEMALE)*WHO? ______________________

____

It is important to identify the relationship and approximate age of "ANOTHER ADULT"s mentioned here by R.

* We will define adult as a person 20 or over.

___61. ABOUT HOW OFTEN LAST YEAR DID YOUR MOTHER OR FATHER ATTEND PARENT-TEACHER ASSOCIATION MEETINGS AT YOUR SCHOOL?

0 NOT AT ALL

1 ONCE IN A WHILE

2 ABOUT HALF THE MEETINGS

3 MOST OR ALL OF THE MEETINGS

If there is no parent association at R's school, code 9.

0 62. For future use.

Card 8
Cols. 63-76

> You will need to know more than the person's name here, but relationship, sex, and approximate age as well. We want to find out whether the first or second choice for the person R thinks understands him best is the same person with whom R talks about his school work or about world affairs. Is he the same person R goes bowling with, etc.? Try to identify his first and second choices here in order that you can refer back to the previous questions about interaction.

WHO DO YOU THINK UNDERSTANDS YOU BEST, THAT IS, HOW YOU FEEL AND WHAT YOU REALLY THINK? ....

HOW DOES THIS PERSON SHOW THIS? ....

....

WHO IS ANOTHER PERSON WHO YOU THINK UNDERSTANDS YOU? ....

HOW DOES THIS PERSON SHOW THIS? ....

....

Code according to categories listed below.

> To qualify as "friend" person should be under 20. If 20 or over, classify as "other adult".

		First Choice	Second Choice
___63.	Mother	0	1
___64.	Father	0	1
___65.	Stepfather or foster father	0	1
___66.	____________________ (uncle or grandfather who acts as father)	0	1
___67.	Brother*	0	1
___68.	Sister*	0	1
___69.	Friend (male)	0	1
___70.	Friend (female)	0	1
___71.	Teacher (male)	0	1
___72.	Teacher (female)	0	1
___73.	Other adult (male)	0	1
___74.	Other adult (female)	0	1

___/___/75,76. For future use

* Brother or sister need not be sibling in the study.

END CARD

Card 9
Cols. 1-17

Cols. 1-5 I.D. and Card Numbers

This is a page for the interviewer to code later using information from pages 35-40. Use the following code on this page:

0 No
1 Yes

___ 6. Is R's first choice on page 40 a person (the same person) he talks with about his school work - often or fairly often? See page 35.

___ 7. Is R's first choice on page 40 a person (the same person) he talks with about world affairs - often or fairly often? See page 36.

___ 8. Is R's first choice on page 40 a person (the same person) he talks with about something else which is important to him - often or fairly often? See page 37.

___ 9. Is R's first choice on page 40 a person (the same person) with whom he has gone to a museum, concert or play during the last two months? See page 38. (Code 9 if first choice is brother, sister or friend.)

___10. Is R's first choice on page 40 a person (the same person) with whom he has gone bowling or played ball during the last month? See page 38. (Code 9 if first choice is brother, sister or friend.)

___11. Is R's first choice on page 40 a person (the same person) with whom he has gone someplace else where R wanted to go within the last month? See page 39. (Code 9 if first choice is brother, sister or friend.)

___12. Is R's second choice on page 40 a person (the same person) he talks with about his school work - often or fairly often? See page 35.

___13. Is R's second choice on page 40 a person (the same person) he talks with about world affairs - often or fairly often? See page 36.

___14. Is R's second choice on page 40 a person (the same person) he talks with about something else which is important to him - often or fairly often? See page 37.

___15. Is R's second choice on page 40 a person (the same person) with whom he has gone to a museum, concert or play during the last two months? See page 38. (Code 9 if second choice is brother, sister or friend.)

___16. Is R's second choice on page 40 a person (the same person) with whom he has gone bowling or played ball during the last month? See page 38. (Code 9 if second choice is brother, sister or friend.)

___17. Is R's second choice on page 40 a person (the same person) with whom he has gone someplace else where R wanted to go within the last month? See page 39. (Code 9 if second choice is brother, sister or friend.)

Card 9
Cols. 18-- 42

HOW MUCH WOULD YOU SAY THAT ______________________________ IS LIKE
(THE PERSON WHO UNDERSTANDS YOU BEST)
THIS?

		NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN	ALWAYS
___18.	...... WOULD RATHER DO THINGS WITH OTHERS THAN BE BY HIMSELF/HERSELF.	0	1	2	3	4
___19.	...... KEEPS HIS/HER FEELINGS TO HIMSELF/HERSELF.	0	1	2	3	4
___20.	...... TRIES TO DO BETTER THAN OTHERS.	0	1	2	3	4
___21.	...... IS LIKELY TO TRY OUT SOMETHING NEW AND DIFFERENT.	0	1	2	3	4
___22.	...... IS WILLING TO TAKE A STAND ON SOMETHING HE/SHE THINKS IS IMPORTANT.	0	1	2	3	4

0 / 0 /23,24. Total number 1

0 / 0 /25,26. Total number 2

0 / 0 /27,28. Difference number 1

0 / 0 /28,30. Difference number 2

HOW IMPORTANT DOES ______________________________ THINK EACH OF
(THE PERSON WHO UNDERSTANDS YOU BEST)
THESE SHOULD BE TO YOU?

		DEFINITELY NOT IMPORTANT	PROBABLY NOT IMPORTANT	PROBABLY IMPORTANT	DEFINITELY IMPORTANT
___31.	BEING LIKED A LOT BY OTHER STUDENTS	0	1	3	4
___32.	HAVING CLOTHES YOU LIKE	0	1	3	4
___33.	BEING RESPECTFUL OF ADULTS	0	1	3	4
___34.	DOING WHAT YOU THINK IS BEST NO MATTER WHAT ANYBODY THINKS	0	1	3	4
___35.	BEING A LEADER	0	1	3	4
___36.	HAVING LOTS OF FUN	0	1	3	4
___37.	BEING GOOD IN SPORTS	0	1	3	4
___38.	BEING AN INDIVIDUAL - DIFFERENT FROM OTHERS	0	1	3	4
___39.	TAKING PART IN SCHOOL ACTIVITIES	0	1	3	4
___40.	DOING THINGS WITH YOUR FAMILY	0	1	3	4

0 / 0 /41,42. Total Difference

Card 9
Cols. 43-59

___43. HOW MUCH HAS ______________________________ INFLUENCED THE IDEAS
(THE PERSON WHO UNDERSTANDS YOU BEST)
YOU HAVE ABOUT YOUR FUTURE?

0 NOT AT ALL
1 A LITTLE
3 FAIRLY MUCH
4 A LOT

If R responds "not at all", skip the next question.

HOW DOES HE/SHE DO THIS? ....

....

___44. HOW MUCH EDUCATION DOES ______________________________ WANT YOU TO
(THE PERSON WHO UNDERSTANDS YOU BEST)
HAVE?

0 ...... WANTS ME TO STOP GOING TO SCHOOL AS SOON AS I CAN.
1 ...... DOESN'T CARE IF I FINISH HIGH SCHOOL OR NOT.
2 ...... WANTS ME TO FINISH HIGH SCHOOL ONLY.
3 ...... WANTS ME TO GO TO TECHNICAL, NURSING, OR BUSINESS SCHOOL AFTER HIGH SCHOOL.
4 ...... WANTS ME TO GET SOME COLLEGE TRAINING, BUT LESS THAN 4 YEARS.
5 ...... WANTS ME TO GRADUATE FROM A 4-YEAR COLLEGE.
6 ...... WANTS ME TO GO TO PROFESSIONAL OR GRADUATE SCHOOL AFTER COLLEGE.

___/___/45,46. HOW MUCH EDUCATION DOES ______________________________ HAVE?
(THE PERSON WHO UNDERSTANDS YOU BEST)

Code actual number of years. If R doesn't know, code "88". If R has told you or can tell you this person's position, use this to get approximate number of years of education, using the minimum number of years required.

HOW MUCH WOULD YOU SAY THAT ______________________________ IS
(THE PERSON WHO UNDERSTANDS YOU NEXT BEST)
LIKE THIS?

	NEVER	HARDLY EVER	FAIRLY OFTEN	VERY OFTEN	ALWAYS
___47. ...... WOULD RATHER DO THINGS WITH OTHERS THAN BE BY HIMSELF/HERSELF.	0	1	2	3	4
___48. ...... KEEPS HIS/HER FELLINGS TO HIMSELF/HERSELF.	0	1	2	3	4
___49. ...... TRIES TO DO BETTER THAN OTHERS.	0	1	2	3	4
___50. ...... IS LIKELY TO TRY OUT SOMETHING NEW AND DIFFERENT.	0	1	2	3	4
___51. ...... IS WILLING TO TAKE A STAND ON SOMETHING HE/SHE THINKS IS IMPORTANT.	0	1	2	3	4

0 / 0 /52,53. Total number 1
0 / 0 /54,55. Total number 2
0 / 0 /56,57. Difference number 1
0 / 0 /58,59. Difference number 2

ON THESE NEXT QUESTIONS, PICK OUT THE ONE OF THE TWO WHICH YOU BELIEVE TO BE MORE OFTEN TRUE THAN THE OTHERS:

___60. SUPPOSE YOUR PARENTS SAY YOU ARE DOING WELL AT SCHOOL. IS THIS LIKELY TO HAPPEN...

0 BECAUSE YOUR SCHOOL WORK IS GOOD, OR

1 BECAUSE THEY ARE IN A GOOD MOOD?

___61. IF A TEACHER PASSES YOU IN A COURSE, WOULD IT PROBABLY BE...

0 BECAUSE OF THE WORK YOU DID, OR

1 BECAUSE SHE LIKED YOU?

___62. 0 BECOMING A SUCCESS IS A MATTER OF HARD WORK: LUCK HAS LITTLE OR NOTHING TO DO WITH IT.

1 GETTING A GOOD JOB DEPENDS MAINLY ON BEING IN THE RIGHT PLACE AT THE RIGHT TIME.

___63. IF A TEACHER SAYS TO YOU, "YOUR WORK IS FINE",

0 IT IS BECAUSE YOU DID A GOOD JOB, OR

1 IT IS SOMETHING TEACHERS USUALLY SAY TO ENCOURAGE PUPILS?

_0_64. Total

WHAT DO YOU THINK ARE THE BEST WAYS TO GET AHEAD IN LIFE?

GIVE THE RANK "1" TO THE WAY YOU THINK IS BEST, A "2' TO THE NEXT BEST WAY, ETC. AND A "4" TO THE WAY THAT HELPS LEAST.

___65. TO WORK HARD

___66. TO HAVE A PLEASANT PERSONALITY AND BE LIKEABLE

___67, TO GET A GOOD EDUCATION

___68. TO KNOW THE RIGHT PEOPLE

_0_69. Total number 1

_0_70. Total number 2

___71. DO YOU KNOW WHAT KIND OF WORK YOU WOULD REALLY LIKE TO DO WHEN YOU FINISH SCHOOL?

0 NO, I DON'T HAVE ANY IDEA AT ALL.

1 I'M NOT SURE, BUT I HAVE SOME IDEA.

2 YES, I'M ALMOST SURE WHAT I WILL DO.

3 YES, I'M ABSOLUTELY SURE WHAT I WILL DO.

If R answers "0", skip the next question.

WHAT KIND OF WORK DO YOU WANT TO DO? ....

....

Record just one response. For R who is "not sure" or "almost sure" ask for most likely kind of work.

Card 9
Cols. 72-76

HERE ARE A FEW QUICK ONES.

___72. WHERE DO YOU LIVE NOW? NAME OF CITY OR TOWN ________________

0 IN RURAL, OPEN COUNTRY
1 IN A VILLAGE (LESS THAN 2500)
2 IN A SMALL TOWN (2500 to 9000)
3 IN THE BUILT-UP AREA OUTSIDE OF A SMALL OR MEDIUM SIZED CITY (10,000 to 49,000)
4 IN A SMALL OR MEDIUM SIZED CITY (10,000 to 49,000)
5 IN THE BUILT-UP AREA AROUND A LARGE CITY (50,000 OR MORE)
6 IN A LARGE CITY (50,000 OR MORE)

___73. WHICH OF THE FOLLOWING BEST DESCRIBES YOU?

0 WHITE
1 BLACK
2 AMERICAN INDIAN
3 ORIENTAL
4 OTHER

___74. WHAT IS YOUR RELIGION? (OPTIONAL)

If R hesitates, continue on to next question and code "9".

0 JEWISH
1 CATHOLIC
2 PROTESTANT. SPECIFY ....
3 OTHER. SPECIFY ....
4 NONE

___75. DOES YOUR FATHER WORK FOR SOMEONE ELSE OR OWN HIS OWN BUSINESS?

(Father who lives with you)
If R's father is part owner, code "1".

0 HE WORKS FOR SOMEONE ELSE.
1 HE OWNS HIS OWN BUSINESS.

___76. DOES YOUR FATHER BOSS OTHER PEOPLE IN HIS WORK?

0 NO
1 YES

END CARD

Card 10
Cols. 1-18

Cols. 1-5 I.D. and Card numbers

HOW DO YOU FEEL ABOUT THE FOLLOWING STATEMENTS?

		DISAGREE STRONGLY	DISAGREE	CAN'T SAY; DON'T KNOW	AGREE	AGREE STRONGLY
___ 6.	NOTHING IN LIFE IS WORTH THE SACRIFICE OF MOVING AWAY FROM ONE'S PARENTS.	0	1	2	3	4
___ 7.	TOO MUCH EMPHASIS IS PLACED ON EDUCATION TODAY.	0	1	2	3	4
___ 8.	THE MOST IMPORTANT THING FOR A PARENT TO DO IS TO HELP HIS CHILDREN GET FURTHER AHEAD IN THE WORLD THAN HE DID.	0	1	2	3	4
___ 9.	IN THIS COUNTRY IT'S CONSIDERED A CRIME TO BE POOR.	0	1	2	3	4
___10.	PARENTS NOTICE THE GOOD THINGS THEIR CHILDREN TRY TO DO.	0	1	2	3	4
___11.	IF YOU DON'T LOOK OUT FOR YOURSELF, PEOPLE WILL TAKE ADVANTAGE OF YOU.	0	1	2	3	4
___12.	WHETHER OR NOT YOU CAN AFFORD TO GO EXACTLY BY THE RULES DEPENDS ON THE SITUATION. IF YOU WERE IN A BAD SPOT, YOU MIGHT HAVE TO BREAK THE RULES.	0	1	2	3	4
___13.	A PERSON SHOULDN'T LET HIS PLANS FOR THE FUTURE KEEP HIM FROM HAVING A GOOD TIME NOW.	0	1	2	3	4
___14.	A PERSON SHOULD RELY ON HIMSELF RATHER THAN ON OTHERS.	0	1	2	3	4
___15.	IF YOU CAN GET WHAT IS RIGHTFULLY YOURS, HOW YOU GET IT IS LESS IMPORTANT.	0	1	2	3	4
___16.	IF YOU CAN HOLD A JOB WITH THE EDUCATION YOU NOW HAVE, THEN THAT'S GOOD ENOUGH.	0	1	2	3	4
___17.	WHENEVER YOU READ ABOUT SOMEBODY WHO HAS MADE THE BIG TIME, YOU AUTOMATICALLY KNOW THAT HE MUST HAVE BROKEN SOME RULES TO GET THERE.	0	1	2	3	4
___18.	EDUCATION IS JUST AS IMPORTANT FOR GIRLS AS IT IS FOR BOYS.	0	1	2	3	4

Card 10
Cols. 19-30

		STRONGLY DISAGREE	DISAGREE	CAN'T SAY; DON'T KNOW	AGREE	AGREE STRONGLY
___19.	IN ORDER TO GET AHEAD IN THE WORLD TODAY, A PERSON SOMETIMES HAS TO DO SOME THINGS THAT ARE NOT RIGHT.	0	1	2	3	4
___20.	PLANNING ONLY MAKES A PERSON UNHAPPY SINCE YOUR PLANS HARDLY EVER WORK OUT ANYHOW.	0	1	2	3	4

0 / 0 /23,24. Total number 1

0 / 0 /25,26. Total number 2

0 / 0 /27,28. Total number 3

HERE ARE TWO IMPORTANT POLITICAL QUESTIONS ON WHICH WE'D LIKE TO KNOW YOUR OPINION.

___29. FIRST, WHAT DO YOU THINK IS THE BEST WAY FOR THE PEOPLE LIVING IN THE POOR DISTRICTS OF BIG CITIES TO HELP SOLVE THEIR PROBLEMS?

0 VIOLENT ACTION, WHEN THERE IS NO OTHER WAY.

1 ORGANIZED ACTION LIKE STRIKES AND SIT-INS, BUT NO VIOLENCE.

2 ORGANIZED ACTION LIMITED TO DEMONSTRATIONS, PETITIONS, AND VOTER REGISTRATION DRIVES.

3 INCREASING PUBLIC UNDERSTANDING BY EDUCATIONAL PROGRAMS ON TV, RADIO, AND IN NEWSPAPERS.

4 NO SPECIAL ACTION OF ANY SORT IS REALLY NECESSARY.

___30. WHAT DO YOU THINK THE UNITED STATES SHOULD DO ABOUT THE WAR IN VIETNAM?

0 WE SHOULD FIGHT UNTIL WE WIN THE WAR.

1 WE SHOULD CONTINUE WITHDRAWING OUR TROOPS GRADUALLY BUT HAVE NO DEADLINE FOR COMPLETING THE WITHDRAWAL.

2 WE SHOULD GET OUR MEN OUT OF VIETNAM AS SOON AS THIS IS PHYSICALLY POSSIBLE.

___31. DO YOU USUALLY EAT ANY FOOD BEFORE YOU GO TO SCHOOL?

0 NO
1 YES

___32. IF NOT, WHY?

Code "9", if R answered "yes" in 31.

0 I AM ON A DIET.
1 I DO NOT LIKE BREAKFAST.
2 I AM USUALLY TOO RUSHED.
3 NO ONE GETS UP IN TIME TO MAKE BREAKFAST.
4 THERE IS NOT ENOUGH FOOD FOR BREAKFAST.
5 OTHER REASONS ....

HOW MANY OF EACH OF THE FOLLOWING HAVE YOU HAD IN THE LAST 24 HOURS?

___33. GLASSES OF MILK
___34. SERVINGS OF CHEESE (count a slice or a tablespoonful as a serving)
___35. EGGS
___36. SERVINGS OF MEAT
___37. SERVINGS OF VEGETABLES (including tomato juice and salad)
___38. BOTTLES OF SODA POP OR SOFT DRINKS
___39. GLASSES OF FRUIT JUICE AND SERVINGS OF FRUIT

Code actual number. If more than 7, code "7".

___40. IF YOU DRANK NO MILK, WHY?

0 I DON'T LIKE MILK.
1 I USUALLY DRINK MILK BUT JUST DIDN'T TODAY.
2 IT IS NOT OUR CUSTOM IN MY FAMILY TO DRINK MILK.
3 IT MAKES MY STOMACH HURT.
4 IT GIVES ME DIARRHEA.
5 MILK IS TOO EXPENSIVE.

___/___/41,42. HOW MANY MONTHS AGO DID YOU GET A PHYSICAL EXAMINATION OR CHECKUP BY A DOCTOR?

If never, code 88. If more than 6 years, (72 months), code 77.

___43. WHEN WAS THE LAST TIME YOUR TEETH WERE EXAMINED BY A DENTIST, OTHER THAN THE SCHOOL DENTIST?

0 NEVER
1 OVER A YEAR AGO
2 IN THE LAST 12 MONTHS

___/___/44,45. HOW TALL ARE YOU? Code actual number of inches. Five feet equals 60 in.: Five feet, four in., code 64. Four feet, nine in., code 57.

___/___/___/46-48. HOW MUCH DO YOU WEIGH? Code actual number of pounds. If R doesn't know, ask for approximate weight.

Card 10
Cols 49-61

Evaluation page

Time started interview ....

Time completed interview ....

___/___/___/49-51. Length of interview?
Code actual number of minutes.
Code 1 hour, 15 minutes as 075.
Code 1 hour, 40 minutes as 100.

___52. During your contact with R, was he:
0 Depressed?
1 Average?
2 Cheerful?

___53. How do you think R answered the questions?
0 I was always certain R answered in a truthful manner.
1 I was usually certain R answered in a truthful manner.
2 I was sometimes certain R answered in a truthful manner.
3 I was rarely certain R answered in a truthful manner.

___54. How interested did R seem in the questions?
0 Not usually interested.
1 About average.
2 Very much interested.

___55. Was R's hair:
0 Closely cropped?
1 Average?
2 Longer than average?
3 Very long?

___56. Was R's dress:
0 Conservative?
1 Average?
2 "Mod"?
3 Bizarre (very unusual?)

		Below Average	Average	Above Average
___58.	How clean was R's hair?	0	1	2
___59.	How clean were R's hands?	0	1	2
___60.	How clean were R's clothes?	0	1	2
___61.	How clean were R's teeth?	0	1	2

	Were R's teeth:	No	Yes
___62.	Broken?	0	1
___63.	Black?	0	1
___64.	Misshapen?	0	1

Code "yes" only if these defects seriously affect R's appearance.

___65. As far as you can tell, has R:
0 Not started to mature at all?
1 Just started to mature?
2 Matured completely?

Use facial hair as an index for boys and body roundedness as an index for girls.